TABLES OF
THE PROPERTIES OF STEAM

AND OTHER VAPORS

AND

TEMPERATURE-ENTROPY
TABLE

BY

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PREFACE.

THE Tables of the Properties of Steam were calculated twenty years ago to accompany the author's Thermodynamics of the Steam Engine; since that time important experimental investigations have been made by Callendar, Barnes, Knoblauch and Thomas. The tables have been recomputed, introducing this information and with certain changes which will be found to facilitate their use. All the tables for saturated steam have columns of entropy due to vaporization; and the table in metric units has been made into a conversion table by aid of which properties can be found in either metric or English units or a combination of the two systems may be used. Quinn, R. Q.

The development of the steam-turbine has given prominence to adiabatic computations for steam and has emphasized the facts that the usual methods are tedious and cannot be worked inversely. To meet this difficulty various diagrams have been devised, all of which have certain inconveniences; if they have a convenient scale, they are so large as to be awkward to carry or to use; all have important problems represented by curves which render interpolation troublesome.

To facilitate the solution of all adiabatic problems (and many others) a Temperature-Entropy Table has been constructed for saturated and superheated steam. For engineering purposes the answers for such problems may be read directly from the table; greater refinement can be had by interpolation when that is thought desirable. That part of the table which refers to saturated steam may be relied upon to give the nearest unit in the last place of significant figures; the degree of accuracy to be attributed to the several properties of saturated steam can be determined from the statements of experimental data and derivation of formulæ given in the Introduction. The properties of superheated steam are given with as much accuracy as conditions warrant. This part of the table offers solutions of problems that cannot be readily obtained otherwise.

Original data are given in the Introduction so far as possible, and computations and transformations of equations are set down at length

so that each one may decide for himself what degree of accuracy he shall attribute to the properties and methods presented.

The actual work of recomputing the Tables of Properties of Steam and of constructing the Temperature-Entropy Table has been done by Mr. Harold A. Everett, S.B., who has also read the proofs. How much that means can be appreciated by those familiar with such undertakings.

C. H. P.

SEPTEMBER, 1907.

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PROPERTIES OF STEAM AND OTHER VAPORS.

INTRODUCTION.

For engineering purposes steam is generated in a boiler which is partially filled with water, and arranged to receive heat from the fire in the furnace.

The ebullition is usually energetic, and more or less water is mingled with the steam; but if there is a fair allowance of steam space over the water, and if proper arrangements are provided for withdrawing the steam, it will be found when tested to contain a small amount of water, usually between half a per cent and a per cent and a half. Steam which contains a considerable percentage of water is passed through a separator which removes almost all of it. Such steam is considered to be approximately dry.

If the steam is quite free from water it is said to be dry and saturated; steam from a boiler with a large steam space and which is making steam very slowly is nearly if not quite dry.

Steam which is withdrawn from the boiler may be heated to a higher temperature than that found in the boiler, and is then said to be superheated.

Saturated Steam. — Our knowledge of the properties of saturated steam and other vapors is due mainly to the experiments of Regnault,* who determined the relations of the temperature and pressure, the total heat of vaporization, and the heat of the liquid for many volatile liquids. Since his time, Rowland's determination of the mechanical equivalent of heat has given a more exact determination of the specific heat of water at low temperatures, and recently Dr. Barnes has given a very precise determination of that property for water. Again, certain work by Knoblauch, Linde and Klebe, has given us a good knowledge of the properties of superheated steam which can be extended to give the specific volumes of saturated steam over a considerable range of temperature; in the proper place a comparison will be made with the usual theoretical computations for volumes.

* *Mémoires de l' Institut de France*, etc., tome xxvi.

Pressure of Saturated Steam. — As a conclusion from all the e: on the tension of saturated steam, Regnault * gives the followir

TEMPERATURE C.	PRESSURE MM. OF MERCURY.
− 32	0.32
− 16	1.29
0	4.60
25	23.55
50	91.98
75	288.50
100	760.00
130	2030.0
160	4651.6
190	9426.
220	17390.
− 20	0.91
+ 40	54.91

From these data he calculated, by the aid of seven-place : the following formulæ, which give the pressure in millimetres for any temperature in degrees Centigrade: —

A. For steam from $-32°$ to $0°$ C,

$$p = a + b\alpha^n.$$
$$a = -0.08038.$$
$$\log b = 9.6024724 - 10.$$
$$\log \alpha = 0.033398.$$
$$n = 32° - t.$$

B. For steam from $0°$ to $100°$ C,

$$\log p = a - b\alpha^n + c\beta^n.$$
$$a = 4.7384380.$$
$$\log b = 0.6116485.$$
$$\log c = 8.1340339 - 10.$$
$$\log \alpha = 9.9967249 - 10.$$
$$\log \beta = 0.006865036.$$
$$n = t.$$

* *Mémoires de l' Insitut de France*, etc., tome **xxi.**

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C. For steam from 100° to 220° C,

$$\log p = a - b\alpha^n + c\beta^n.$$
$$a = 5.4583895.$$
$$\log b = 0.4121470.$$
$$\log c = 7.7448901 - 10.$$
$$\log \alpha = 9.997412127 - 10.$$
$$\log \beta = 0.007590697.$$
$$n = t - 100.$$

D. For steam from − 20° to 220° C

$$\log p = a - b\alpha^n - c\beta^n.$$
$$a = 6.2640348.$$
$$\log b = 0.1397743.$$
$$\log c = 0.6924351.$$
$$\log \alpha = 9.994049292 - 10.$$
$$\log \beta = 9.998343862 - 10.$$
$$n = t + 20.$$

By aid of the formulæ *A* and *B*, Regnault calculated tables of the pressures of saturated steam for temperatur to 100° C. The formula *D* was calculated from the da for the temperatures − 20°, + 40°, 100°, 160°, and 22 intended to represent the whole range of experiments. B instead of formula *C*, he calculated the pressures set dov for temperatures from 100° C. to 220° C. In the calc constants and in their application to computations of pr temperatures, there is an inevitable loss of accuracy so th not agree satisfactorily with the original data.

Equations for the Pressure of Steam at Paris. — In view statements, it appeared desirable to re-calculate the cons tions *B* and *C*, with a degree of accuracy that should ex as to the reliability of the results. Accordingly, the loga were taken from Vega's ten-place table, and then the r calculations were carried on with natural numbers, ch pendent methods, with the following results:—

B. For steam from 0° to 100° C,

$$\log p = a - b\alpha^n + c\beta^n.$$
$$a = 4.7393622142.$$
$$\log b = 0.6117400190.$$
$$\log c = 8.1320378383 - 10.$$
$$\log \alpha = 9.996725532820 -$$
$$\log \beta = 0.006864675924.$$
$$n = t.$$

C. For steam from 100° to 220° C,

$$\log p = a - b\alpha^n + c\beta^n.$$

$$a = 5.4574301234.$$

$$\log b = 0.4119787931.$$

$$\log c = 7.7417476470 - 10.$$

$$\log \alpha = 9.99741106346 - 10.$$

$$\log \beta = 0.007642489113.$$

$$n = t - 100.$$

To show the degree of accuracy attained, the following tables are given:—

EQUATION B.

t.	p.	LOG p FROM TABLE OF LOGARITHMS.	LOG p CALCULATED BY EQUATION.
0	4.60	0.6627578317	. . . . .
25	23.55	1.3719909115	1.37199097
50	91.98	1.9636934052	1.96369346
75	288.50	2.4601458175	2.46014587
100	760	2.8808135923	2.88081365

EQUATION C.

t.	p.	LOG p FROM TABLE OF LOGARITHMS.	LOG p CALCULATED BY EQUATION.
100	760.00	2.8808135923	. . . .
130	2030.0	3.3074960379	3.307496036
160	4651.6	3.6676023618	3.667602359
190	9426	3.9743274354	3.974327428
220	17390	4.2402995820	4.240299575

The results from Equation C are quite satisfactory; for the errors come in the ninth place of decimals, and one place of decimals is unavoidably lost in the application of the formula. Equation B was calculated after Equation C and the numerical work was not carried to so large a number of decimal places. For the calculation of tables, the constants are carried to seven places of significant figures only; this gives six significant figures in the result, of which five are recorded in the tables.

Pressure of Steam at Latitude 45°. — French System. — It is customary to reduce all measurements to the latitude of 45°, and to sea-level. The standard thermometer should then have its boiling and freezing points

determined under, or reduced to such conditions. The value of g, the acceleration due to gravity, is, at Paris, latitude 48° 50′ 14″ and 60 metres above sea-level, 9.809218 metres; and at 45°, and at sea-level, it is 9.806056 metres. Consequently, 760 mm. of mercury at 45° gives a pressure equal to that of 759.755 mm. at Paris; and this corresponds to a temperature of 99°.991 C.

In other words, the thermometer which is standard at 45° has each degree 0.99991 of the length of the degree of a thermometer standard at Paris.

To reduce Equation B to 45° latitude, we have

$$\log p = a + \log \frac{980.9218}{980.6056} - b\alpha^{0.99991t} + c\beta^{0.99991t};$$

and for Equation C,

$$\log p = a + \log \frac{980.9218}{980.6056} - b\alpha^{(0.99991t-100)} + c\beta^{(0.99991t-100)}$$

$$= a + \log \frac{980.9218}{980.6056} - b\alpha^{-0.009}\alpha^{0.99991(t-100)} + c\beta^{-0.009}\beta^{0.99991(t-100)}.$$

The resulting equations which were used in calculating Table III are

B. For steam from 0° to 100° C. at 45° latitude,

$$\log p = a_1 - b\alpha_1^n + c\beta_1^n.$$
$$a_1 = 4.739502.$$
$$\log b = 0.6117400.$$
$$\log c = 8.13204 - 10.$$
$$\log \alpha_1 = 9.996725828 - 10.$$
$$\log \beta_1 = 0.0068641.$$
$$n = t.$$

C. For steam from 100° to 220° C. at 45° latitude,

$$\log p = a_1 - b_1\alpha_1^n + c_1\beta_1^n.$$
$$a_1 = 5.457570.$$
$$\log b_1 = 0.4120021.$$
$$\log c_1 = 7.74168 - 10.$$
$$\log \alpha_1 = 9.997411296 - 10.$$
$$\log \beta_1 = 0.0076418.$$
$$n = t - 100.$$

Pressure of Steam at Latitude 45°. — **English System.** — To reduce the equations for the pressure of steam, so that they will give the pressures in pounds on the square inch for degrees Fahrenheit, there are required the comparison of measures of length, and of weight, the comparison of the scales of the thermometers, and the specific gravity of mercury.

Professor Rogers * gives for the length of the metre, 39.3702 inches.

Professor Miller † gives for the weight of one kilogram, 2.20462125 pounds.

Regnault gives, for the weight of one litre of mercury, 13.5959 kilograms.

The degree Fahrenheit is $\frac{5}{9}$ of the length of the degree Centigrade.

Let
$$k = \frac{13.5959 \times 2.204621}{39.3702^2};$$

then the equations *B* and *C* have for the reduction to degrees Fahrenheit, and pounds on the square inch,

$$\log p = a_1 + \log k - b\alpha^{\frac{5}{9}n} + c\beta^{\frac{5}{9}n},$$
$$\log p = a_1 + \log k - b_1\alpha_1^{\frac{5}{9}n} + c_1\beta_1^{\frac{5}{9}n}.$$

The resulting equations, which were used in calculating Table I, are: —

B. For steam from 32° to 212° F., in pounds on the square inch,

$$\log p = a_2 - b\alpha_2^{\,n} + c\beta_2^{\,n}.$$
$$a_2 = 3.025908.$$
$$\log b = 0.6117400.$$
$$\log c = 8.13204 - 10.$$
$$\log \alpha_2 = 9.998181015 - 10.$$
$$\log \beta_2 = 0.0038134.$$
$$n = t - 32.$$

C. For steam from 212° to 428° F., in pounds on the square inch,

$$\log p = a_2 - b_1\alpha_2^{\,n} + c_1\beta_2^{\,n}.$$
$$a_2 = 3.743976.$$
$$\log b_1 = 0.4120021.$$
$$\log c_1 = 7.74168 - 10.$$
$$\log \alpha_2 = 9.998561831 - 10.$$
$$\log \beta_2 = 0.0042454.$$
$$n = t - 212.$$

* *Proceedings of the Am. Acad. of Arts and Sciences*, 1882–83, also *Additional Observations*, etc.

† *Phil. Transactions*, cxlvi., 1856.

All of the foregoing equations make the pressure a function of the temperature on the scale of the air-thermometer. It will be assumed that the difference between that scale and the absolute scale may be neglected.

Pressure of Other Vapors. — Regnault determined also the pressure of a large number of saturated vapors at various temperatures, and deduced equations for each. The equations and the constants as determined by him for the commoner vapors are given in the following table:

	log p	a	b	c
Alcohol	$a - b\alpha^n + c\beta^n$	5.4562028	4.9809960	0.0485397
Ether	$a + b\alpha^n - c\beta^n$	5.0286298	0.0002284	3.1906390
Chloroform	$a - b\alpha^n - c\beta^n$	5.2253893	2.9531281	0.0668673
Carbon bisulphide	$a - b\alpha^n - c\beta^n$	5.4011662	3.4405663	0.2857386
Carbon tetrachloride	$a - b\alpha^n - c\beta^n$	12.0962331	9.1375180	1.9674890

	log α	log β	n	Limits.
Alcohol	$\bar{1}.99708557$	$\bar{1}.9409485$	$t + 20$	$-20°, +150°$ C.
Ether	0.0145775	$\bar{1}.996877$	$t + 20$	$-20°, +120°$ C.
Chloroform	$\bar{1}.9974144$	$\bar{1}.9868176$	$t - 20$	$+20°, +164°$ C.
Carbon bisulphide	$\bar{1}.9977628$	$\bar{1}.9911997$	$t + 20$	$-20°, +140°$ C.
Carbon tetrachloride	$\bar{1}.9997120$	$\bar{1}.9949780$	$t + 20$	$-20°, +188°$ C.

Zeuner * states that there is a slight error in Regnault's calculation of the constants for aceton, and gives instead

$$\begin{aligned} \log p &= a - b\alpha^n + c\beta^n; \\ a &= 5.3085419; \\ \log b\alpha^n &= +0.5312766 - 0.0026148\,t; \\ \log c\beta^n &= -0.9645222 - 0.0215592\,t. \end{aligned}$$

Differential Coefficient $\frac{dp}{dt}$. — As will be seen later, the differential coefficient $\frac{dp}{dt}$ is used in calculating the volume and density of saturated vapors.

From the general equation of the form,

$$\log p = a + b\alpha^n + c\beta^n,$$

differentiation gives

$$\frac{1}{p}\frac{dp}{dt} = \frac{1}{M^2} b \log \alpha \,.\, \alpha^n + \frac{1}{M^2} c \log \beta \,.\, \beta^n,$$

in which M is the modulus of the common system of logarithms.

* Mechanische Warmetheoric.

The equation may be written,

$$\frac{1}{p}\frac{dp}{dt} = A\alpha^n + B\beta^n.$$

The calculation of the values of the constants gives the following results latitude 45° :—

French units.

B. For 0° to 100° C., mm. of mercury,

$$\log A = 8.8512729 - 10.$$
$$\log B = 6.69305 - 10.$$
$$\log \alpha_1 = 9.996725828 - 10.$$
$$\log \beta_1 = 0.0068641.$$

C. For 100° to 220° C., mm. of mercury,

$$\log A = 8.5495158 - 10.$$
$$\log B = 6.34931 - 10.$$
$$\log \alpha_1 = 9.997411296 - 10.$$
$$\log \beta_1 = 0.0076418.$$

English units.

B. For 32° to 212° F., pounds on the square inch,

$$\log A = 8.5960005 - 10.$$
$$\log B = 6.43778 - 10.$$
$$\log \alpha_2 = 9.998181015 - 10.$$
$$\log \beta_2 = 0.0038134.$$

C. For 212° to 428° F., pounds on the square inch,

$$\log A = 8.2942434 - 10.$$
$$\log B = 6.09403 - 10.$$
$$\log \alpha_2 = 9.998561831 - 10.$$
$$\log \beta_2 = 0.0042454.$$

The following table gives values for several other vapors:

	Sign.		Log ($A\alpha^n$)	Log ($B\beta^n$)
	$A\alpha^n$	$B\beta^n$		
cohol	+	−	$-1.1720041-0.0029143\,t$	$-2.9992701-0.0590515\,t$
her	+	+	$-1.3396624-0.0031223\,t$	$-4.4616396+0.0145775\,t$
loroform	+	+	$-1.3410130-0.0025856\,t$	$-2.0667124-0.0131824\,t$
rbon bisulphide .	+	+	$-1.4339778-0.0022372\,t$	$-2.0511078-0.0088003\,t$
rbon tetrachloride	+	+	$-1.8611078-0.0002880\,t$	$-1.3812195-0.0050220\,t$
eton	+	+	$-1.3268535-0.0026148\,t$	$-1.9064582-0.0215592\,t$
			t, temperature C.	

Standard Temperature. — It is customary to refer all calculations for ses to the standard conditions of the pressure of the atmosphere (760 mm. mercury) and to the freezing-point of water. Formerly the freezing-int was taken as the standard temperature for water and steam as even w it is the initial point for tables of the properties of saturated vapors. ut the investigation of the mechanical equivalent of heat by Rowland sulted in a determination of the specific heat of water with much greater licacy than is possible by Regnault's method of mixtures, and showed at the freezing-point is not well adapted for the standard temperature r water. It has been the habit of many physicists for many years to ke 15° C. as the standard temperature, and this corresponds substan-lly with 62° F., at which the English units of measure are standard.

Mechanical Equivalent of Heat. — The most authoritative determina-n of the mechanical equivalent of heat appears to be that by Rowland,* om which the work required to raise the temperature of one pound of ater from 62° to 63° F. is

778 foot-pounds.

This is equivalent to

427 metre kilograms

the metric system. Since his experiments were made this important ysical constant has been investigated by several experimenters, and so a recomputation of his results has been made after a recomparison his thermometers. The conclusion appears to be that his results may a little small, but the differences are not important, and it is not certain at the conclusion is valid. There seems, therefore, no sufficient reason r changing the accepted values given above.

Specific Heat of Water. — The most reliable determination of the ecific heat of water is that by Dr. Barnes,† who used an electrical ethod devised by Professor Callendar and himself, and who extended e method to and below freezing-point by carefully cooling water without e formation of ice to − 5° C. This method gives relative results with eat refinement, and gives also a good confirmation of Rowland's deter-ination of the mechanical equivalent of heat. Dr. Barnes reports lues of the specific heat of water up to 95° C. In the following table s results are quoted from 0° to 55° C.; from 55° to 95° his results have

* *Proc. Am. Acad.*, vol. xv. (N. S. vii), 1879.

† *Physical Review*, vol. xv, p. 71, 1902..

been slightly increased to join with results determined by recomputing Regnault's experiments on the heat of the liquid for water (which experiments range from 110° C. to 180° C.) by allowing for the true specific heat at low temperature from Dr. Barnes's experiments. The maximum effect of modifying Dr. Barnes's results is to increase the heat of the liquid at 95° by one-tenth of one per cent.

Temperature. C.	Temperature. F.	Specific Heat.	Temperature. C.	Temperature. F.	Specific Heat.	Temperature. C.	Temperature. F.	Specific Heat.
0	32	1 .0004	45	113	0 .99760	90	194	1 .00705
5	41	1 .00530	50	122	0 .99800	95	103	1 .00855
10	50	1 .00230	55	131	0 .99850	100	212	1 .01010
15	59	1 .00030	60	140	0 .99940	120	248	1 .01620
20	68	0 .99895	65	149	1 .00040	140	284	1 .02230
25	77	0 .99806	70	158	1 .00150	160	320	1 .02850
30	86	0 .99759	75	167	1 .00275	180	356	1 .03475
35	95	0 .99735	80	176	1 .00415	200	392	1 .04100
40	104	0 .99735	85	188	1 .00557	220	428	1 .04760

Heat of the Liquid. — The heat required to raise one unit of weight of any liquid from freezing-point to a given temperature is called the heat of the liquid at that temperature; and also at the corresponding pressure. Since the specific heat for water varies we may obtain the heat of the liquid by integration as indicated by the equation

$$q = \int c\,dt.$$

In order to use this equation it would be necessary to obtain an empirical equation connecting the specific heat with the temperature; such an equation has not been proposed and would probably be complex. Another method is to draw a curve with temperatures as abscissæ and specific heats as ordinates and integrate graphically. The fact that the specific heat is nearly equal to unity at all temperatures and that consequently the heat of the liquid for the Centigrade thermometer is not very different from the temperature suggests the following method:

Let $$c = 1 + k$$

where k is the difference between the specific heat and unity at any temperature, k being positive or negative as the case may be.

Then $$q = t + \int kdt,$$

which may be obtained by plotting values of k as ordinates and integrating graphically, which will have the advantage that the required curve may be drawn to a large scale and give correspondingly accurate results. The values for the heat of the liquid for water in the tables were obtained in this way.

The following table gives equations for the heats of the liquid for various substances as determined by Regnault:

HEAT OF THE LIQUID.

Alcohol	$q = 0.54754t + 0.0011218t^2 + 0.0000002206t^3$
Ether	$q = 0.52901t + 0.0002959t^2$
Chloroform	$q = 0.23235t + 0.0000507t^2$
Carbon bisulphide .	$q = 0.23523t + 0.0000815t^2$
Carbon tetrachloride	$q = 0.19798t + 0.0000906t^2$
Aceton	$q = 0.50643t + 0.0003965t^2$

Total Heat. — This term is defined as the heat required to raise a unit of weight of water from freezing-point to a given temperature, and to entirely evaporate it at that temperature. The experiments made by Regnault were in the reverse order; that is, steam was led from a boiler into the calorimeter and there condensed. Knowing the initial and final weights of the calorimeter, the temperature of the steam, and the initial and final temperatures of the water in the calorimeter, he was able, after applying the necessary corrections, to calculate the total heats for the several experiments.

As a conclusion of the work, he gives the following values for the total heats: —

10°	610	By equation, 609.6
63°	625	625.2
100°	637	
195°	666	

Assuming an equation of the form

$$H = A + Bt,$$

Regnault calculated the constants from the values given for 100° and 195°, and gives the equation

$$H = 606.5 + 0.305t.$$

For the Fahrenheit scale the equation becomes

$$H = 1091.7 + 0.305\,(t - 32).$$

An investigation of the original experimental results, allowing for the true specific heat of the water in the calorimeter, showed that the probable errors of the method of determining the total heat were larger than the deviations of the true specific heats from unity, the value assumed by Regnault; and, further, it appeared that his equation represents our best knowledge of the total heat of steam. There appears to be no reason for changing this equation till new experimental values shall be supplied. The deviation of individual experimental results from corresponding computations by the equation is likely to be one in five hundred. There is further some uncertainty whether the method of drawing steam from the boiler did not involve some error due to entrained moisture. The best check upon Regnault's results is a comparison with Knoblauch's work on superheated steam.

The total heats for various fluids are given by the following equations:

Ether	$H = 94 + 0.45t - 0.0005556t^2$
Chloroform	$H = 67 + 0.1375t$
Carbon bisulphide . .	$H = 90 + 0.14601t - 0.0004123t^2$
Carbon tetrachloride .	$H = 52 + 0.14625t - 0.000172t^2$
Aceton	$H = 140.5 + 0.36644t - 0.000516t^2$

Specific Volume of Liquids. — The coefficient of expansion of most liquids is large as compared with that of solids, but it is small as compared with that of gases or vapors. Again, the specific volume of a vapor is large compared with that of the liquid from which it is formed. Consequently the error of neglecting the increase of volume of a liquid with the rise of temperature is small in equations relating to the thermodynamics of a saturated vapor, or of a mixture of a liquid and its vapor when a considerable part by weight of the mixture is vapor. It is, therefore, customary to consider the specific volume of a liquid to be constant.

Table XII, giving the specific volumes of various liquids, was taken from the *Phys.-Chem.* Tabellen of Landolt and Börnstein.

Volume of Water. — Table XIII gives the volumes of water compared with its volume at 4°. From 0° to 100° C., the values are those given by

Rossetti. Above 100°, the values are those calculated by the equatic given by Hirn.*

Volumes of Liquids. — The volumes of liquids at high temperatur compared with the volume at freezing-point, are represented by t following equations given by Hirn: —

		Logs.
Water 100° C. to 200° C. (vol. at 4° C. = unity)	$v = 1 + 0.00010867875t$	6 .0361445 -
	$+0.0000030073653t^2$	4 .4781862 -
	$+0.000000028730422t^3$	1 .4583419 -
	$-0.0000000000066457031t^4$	8 .8225409 -
Alcohol 30° C. to 160° C. (vol. at 0° C. = unity)	$v = 1 + 0.00073892265t$	6 .8685991 -
	$+0.00001055235t^2$	3 .0233492 -
	$-0.000000092480842t^3$	2 .9660517 -
	$+0.0000000004041356 7t^4$	0 .6065278 -
Ether 30° C. to 130° C. (vol. at 0° C. = unity)	$v = 1 + 0.0013489059t$	7 .1299817 -
	$+0.0000065537t^2$	4 .8164866 -
	$-0.000000034490756t^3$	2 .5377028 -
	$+0.0000000003377206 2t^4$	0 .5285571 -
Carbon bisulphide 30° to 160° C. (vol. at 0° C. = unity)	$v = 1 + 0.0011680559t$	7 .0674636 -
	$+0.0000016489598t^2$	4 .2172103 -
	$-0.0000000081119062t^3$	0 .9091229 -
	$+0.00000000000609465 89t^4$	8 .7849494 -
Carbon tetrachloride 30° to 160° C. (vol. at 0° C. = unity)	$v = 1 + 0.0010671883t$	7 .0282409 -
	$+0.0000035651378t^3$	4 .5520763 -
	$-0.000000014949281t^3$	2 .1746202 -
	$+0.0000000000851823 18t^4$	9 .9303494 -

Heat of Vaporization. — If the heat of the liquid be subtracted fr the total heat, the remainder is called the heat of vaporization, and represented by r, so that

$$r = H - q.$$

Internal and External Latent Heat. — The heat of vaporization ov comes external pressure, and changes the state from liquid to vapor constant temperature and pressure. Let the specific volume of t saturated vapor be s, and that of the liquid be σ, then the change volume is $s - \sigma = u$, on passing from the liquid to the vaporous sta The external work is

$$p\,(s - \sigma) = pu,$$

and the corresponding amount of heat, or the external latent heat, is

$$Ap\,(s - \sigma) = Apu,$$

A being the reciprocal of the mechanical equivalent of heat.

* *Annales de Chimie et de Physique.*, 1867.

The heat required to do the disgregation work, or the internal latent heat, is

$$\rho = r - Apu.$$

Specific Volume and Density of Steam. — On account of the great difficulty of direct determination of the weight of saturated steam, it is customary to calculate the specific volume of steam by aid of the following equation, derived by the application of the principles of thermodynamics to the general equation representing the properties of saturated vapor: —

$$s = \frac{r}{AT} \cdot \frac{1}{\frac{dp}{dt}} + \sigma,$$

in which A is the reciprocal of the mechanical equivalent of heat, T is the temperature from the absolute zero, and σ is the volume of one unit of weight of the liquid from which the vapor is formed. The differential coefficient $\frac{dp}{dt}$ can be calculated by aid of the equations on page 8.

The absolute temperature is obtained by adding 273 to the temperature in degrees Centigrade, or 459.5 to the temperature in degrees Fahrenheit.

The volumes and densities of saturated steam given in Tables I and III were calculated by this method.

It is of interest to consider the degree of accuracy that may be expected from this method of calculating the density of saturated vapor. The value of r depends on H and q, the total heat and the heat of the liquid; the latter is now well known, but the total heat is probably in doubt to the extent of $\frac{1}{500}$ and may be more. The absolute temperature T appears to be better known and may be subject to an error of no more than $\frac{1}{1000}$ or $\frac{1}{2000}$; and the mechanical equivalent $\frac{1}{A}$ of heat is perhaps as well determined as the absolute temperature. The least satisfactory factor in the expression is the differential coefficient $\frac{dp}{dt}$, which is derived by differentiating one of the empirical equations on pages 5 and 6. It is true that the resulting equations on page 8 afford a ready means of computing values of the coefficient with great apparent accuracy, but some idea of the essential vagueness of the method may be obtained by comparing computations of the specific volume of saturated steam at 212° C., a point for which

either equation B_1 or equation C_1 will give the pressure as 14.6967 pounds per square inch. The specific volume by aid of equation on page 14, using equation B_1 for determining the differential coefficient, is 26.62, while the differential coefficient from equation C_1 gives 26.71; the discrepancy is about $\frac{1}{300}$; or if the mean 26.66 be taken as the probable value, either computed value is subject to an error of $\frac{1}{600}$.

Quality or Dryness Factor. — All the properties of saturated steam, such as pressure, volume, and heat of vaporization, depend on the temperature only, and are determinable either by direct experiment or by computation, and are commonly taken from tables calculated for the purpose.

Many of the problems met in engineering deal with mixtures of liquid and vapor, such as water and steam. In such problems it is convenient to represent the proportions of water and steam by a variable known as the quality or the dryness factor; this factor, x, is defined as that portion of each pound of the mixture which is steam; the remnant, $1 - x$, is consequently water.

Specific Volume of Wet Steam. — If a pound of a homogeneous mixture of water and steam is x part steam, then the specific volume may be represented by

$$v = xs + (1 - x)\,\sigma = xu + \sigma$$

where u is the increase of volume due to vaporization.

Intrinsic Energy. — It has been shown that the heat of vaporization can be broken into the two parts $A\,pu$ and ρ, the first being required to do external work and the second internal work; the latter part together with the heat of the liquid form the heat equivalent of the intrinsic energy so that

$$E = \frac{1}{A}(\rho + q),$$

or if only x part is vaporized

$$E = \frac{1}{A}(x\rho + q).$$

Entropy. — In the discussion of steam-engines or other heat engines, it is convenient to begin by considering the way in which steam (or other working substance) would behave if the cylinder were made of non-conducting material. Afterwards the effect of the actual material can

be investigated. The expansion line which an indicator would draw under such conditions is called an adiabatic line. Calculations for adiabatic changes of steam can be made by aid of a special function devised for the purpose and called entropy. A discussion of adiabatic actions and of entropy can be found in any text-book on Thermodynamics; for example, on pages 17 and 31 of the *Thermodynamics of the Steam Engine* by the author. It is sufficient for our present purpose to consider that entropy can be expressed numerically and that the numerical values enter into the calculation of certain engineering problems.

It is customary to represent entropy in general by ϕ, but entropy may be represented by θ in dealing with a liquid like water.

The second law of thermodynamics enables us to deduce the equation

$$d\phi = \frac{dQ}{T},$$

in which dQ is an infinitesimal amount of heat added at the absolute temperature T. This equation is the basis of the calculation of entropy.

Entropy of Vaporization. — If a pound of steam at the temperature t (or absolute temperature T) is partially vaporized, the heat expended for that purpose is xr; the temperature being constant the above equation may be directly integrated giving

$$\phi - \phi_0 = \frac{xr}{T} = x\frac{r}{T}.$$

In Tables I, II, and III values of $\frac{r}{T}$ are given for each degree or each pound as the case may be.

Entropy of the Liquid. — The increase of entropy due to heating water from freezing-point to any temperature t may be represented by the equation

$$\theta = \int\frac{dq}{T} = \int\frac{cdt}{T}.$$

Inspection of the table on page 10 shows that the specific heat of water is but little larger than unity; it is convenient to represent it by the expression

$$c = 1 + k;$$

this expression introduced in the preceding equation gives

$$\theta = \int \frac{dt}{T} + \int \frac{kdt}{T} = \log_e \frac{T}{T_0} + \int_{t_0}^{t} k \frac{dt}{T},$$

hich t_0 and T_0 are the temperature by the thermometer of freezing, the corresponding absolute temperature. The first part of the e expression for the entropy of the liquid can be computed readily, the second part (which is small) can be determined graphically great precision. This method was used for the tables of the erties of saturated steam.

o obtain the entropy of any liquid named on page 11, we may first rentiate the proper equation to obtain dq and then integrate as cated by the equation

$$\theta = \int \frac{dq}{T}.$$

he values given in Tables IV to IX were determined in this way, those for the two following tables were computed in the same ner.

ntropy of a Mixture of a Liquid and its Vapor. — The increase in opy due to heating a unit of weight of a liquid from freezing-point he temperature t and then vaporizing x portion of it is

$$\theta + \frac{xr}{T},$$

re θ is the entropy of the liquid, r is the heat of vaporization, and T e absolute temperature. For steam $\frac{r}{T}$ may be taken from the tables; other vapors it must usually be calculated.

or any other state determined by x_1 and t_1 we shall have, for the ease of entropy above that of the liquid at freezing-point,

$$\frac{x_1 r_1}{T_1} + \theta_1.$$

he change of entropy in passing from one state to another is

$$\phi - \phi_1 = \frac{xr}{T} + \theta - \frac{x_1 r_1}{T_1} - \theta_1.$$

When the condition of the mixture of a liquid and its vapor is given by the pressure and value of x, then a table giving the properties at each pound may be conveniently used for this work.

Adiabatic Equation for a Liquid and its Vapor. — During an adiabatic change the entropy is constant, so that the preceding equation gives

$$\frac{x_1 r_1}{T_1} + \theta_1 = \frac{x_2 r_2}{T_2} + \theta_2 .$$

When the initial state, determined by x_1 and t_1 or p_1, is known and the final temperature t_2, or the final pressure p_2, the final value x_2 may be found by this equation. The initial and final volumes mav be calculated by the equations

$$v_1 = x_1 u_1 + \sigma \text{ and } v_2 = x_2 u_2 + \sigma.$$

Tables of the properties of saturated vapor commonly give the specific volume s but

$$s = u + \sigma.$$

The value of σ for water is 0.016, and for other liquids will be found in Table XII.

For example, one pound of dry steam at 100 pounds absolute has the following properties found in Table II:

$$t_1 = 327^\circ.6 \text{ F.} \qquad \frac{r_1}{T_1} = 1.1228 \quad \theta_1 = 0.4743 \quad s_1 = 4.409 \quad x_1 = 1$$

If the final pressure is 15 pounds absolute, we have

$$t_2 = 213^\circ.0 \text{ F.} \qquad \frac{r_2}{T_2} = 1.4358 \quad \theta_2 = 0.3141 \quad s_2 = 26.21$$

whence

$$1.5971 = 1.4358\, x + 0.3141$$
$$\therefore x_2 = .8935$$

The initial and final volumes are

$$v_1 = s_1 = 4.409$$
$$v_2 = x_2 u_2 + \sigma = 23.40$$

Such a problem cannot be solved inversely, that is we cannot assume a final volume and determine directly the temperature and pressure corresponding. The Temperature-Entropy Table to be explained later

however, give an approximate solution directly, and an exact solution nterpolation.

xternal Work during Adiabatic Expansion. — Since no heat is transed during an adiabatic expansion, all of the intrinsic energy lost is ged into external work, so that

$$W = E_1 - E_2 = \frac{1}{A}(q_1 - q_2 + x_1\rho_1 - x_2\rho_2)$$

r example, the external work of one pound of dry steam in expanding batically from 100 pounds to 15 pounds absolute is

$$W = 778\,(298.1 - 181.3 + 1 \times 802.4 - 0.8935 \times 89.30)$$
$$W = 121.3 \times 778 = 94{,}370 \text{ foot-pounds.}$$

tention should be called to the unavoidable defect of this method of ulation of external work during adiabatic expansion, in that it depends aking the difference of quantities which are of the same order of nitude. For example, the above calculation appears to give four es of significant figures, while, as a matter of fact, the total heat H which ρ is derived is affected by a probable error of $\frac{1}{500}$ or perhaps e. Both the quantities

$$q_1 + x_1\rho_1 \text{ and } q_2 + x_2\rho_2$$

a numerical value somewhere near 1000, and an error of $\frac{1}{500}$ is ly equivalent to two thermal units, so that the probable error of the e calculation is nearly two per cent. For a wider range of temperathe error is less, and for a narrower range it is of course larger. This er should be borne in mind in considering the use of approximate hods of calculation, for example, by aid of a diagram like the temture-entropy diagram.

eat Contents. — The heat required to raise one pound of water from zing-point to a given temperature t corresponding to a pressure p, to vaporize a part x at that pressure is represented by

$$xr + q;$$

quantity may be called the heat contents.

Rankine's Cycle. — An important investigation for the steam-engine may be made by aid of the accompanying figure which represents the indicator diagram from a steam-engine without clearance and with a nonconducting cylinder. Steam is admitted at an absolute pressure p_1 from a to b; adiabatic expansion follows from b to c; finally the steam is exhausted from c to d at the pressure p_2. The external work during admission for one pound of steam having the quality x_1 is

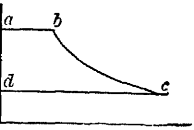

FIG. 1

$$p_1 v_1 = p_1 (x_1 u_1 + \sigma);$$

the external work during expansion is

$$E_1 - E_2 = \frac{1}{A}(q_1 - q_2 + x_1\rho_1 - x_2\rho_2);$$

and the external work during exhaust is

$$p_2 v_2 = p_2 (x_2 u_2 + \sigma)$$

which must be subtracted since it is done by the piston on the steam. The effective work of the cycle is

$$p_1 v_1 + E_1 - E_2 - p_2 v_2$$

or substituting the proper values

$$W = \frac{1}{A}(q_1 + x_1\rho_1 + Ap_1x_1u_1 - q_1 - x_2\rho_2 - Ap_2x_2u_2) + (p_1 + p_2)\sigma;$$

the last term is small and may be dropped.

Remembering that

$$r = \rho + Apu,$$

we have

$$W = \frac{1}{A}(q_1 + x_1 r_1 - q_2 - x_2 r_2).$$

The values of r and q may be taken from Tables I, II, or III, and the value of x_2 can be determined by aid of the equation

$$\frac{x_1 r_1}{T_1} + \theta_1 = \frac{x_2 r_2}{T_2} + \theta_2.$$

By the first law of thermodynamics the difference between the heat supplied to an engine and the heat rejected, is equivalent to the work done, provided there are no losses; therefore,

$$Q_1 - Q_2 = x_1 r_1 + q_1 - (x_2 r_2 + q_2).$$

This most important conclusion can be stated as follows: the heat anged into work by a steam-engine working on Rankine's cycle, is ual to the difference in the heat contents of the steam supplied to and hausted by the engine.

This same expression is found in the discussion of steam-turbines.

Problems of this nature can be solved immediately by aid of the emperature-Entropy Table.

Superheated Steam. — A dry and saturated vapor, not in contact with e liquid from which it is formed, may be heated to a temperature greater an that corresponding to the given pressure for the same vapor when turated; such a vapor is said to be superheated. When far removed om the temperature of saturation, such a vapor follows the laws of erfect gases very nearly, but near the temperature of saturation the eparture from those laws is too great to allow of calculations by them r engineering purposes.

All the characteristic equations that have been proposed have been erived from the equation

$$pv = RT,$$

hich is very nearly true for the so-called perfect gases at moderate tem- eratures and pressures; it is, however, well known that the equation does ot give satisfactory results at very high pressures or very low tempera- ires. To adapt this equation to represent superheated gas, a corrective rm is added to the right-hand side which may most conveniently be ssumed to be a function of the temperature and pressure, so that cal- ilations by it may be made to join on to those for saturated steam.

The most satisfactory characteristic equation of this sort is that given y Knoblauch,* Linde, and Klebe,

$$pv = BT - p\,(1 + ap)\left[C\left(\frac{373}{T}\right)^3 - D\right]$$

the pressure is in kilograms per square metre, v is in cubic metres, nd T is the absolute temperature by the Centigrade thermometer. 'he constants have the following values:

$$B = 47.10, \quad a = 0.000002, \quad C = 0.031, \quad D = 0.0052.$$

In the English system of units, the pressures being in pounds per

* *Mitteilungen uber Forschungsarbeiten,* etc., Heft 21, S. 33, 1905.

square foot, the volumes in cubic feet per pound, and the temperatures in the Fahrenheit scale, we have

$$pv = 85.85\,T - p\,(1 + 0.00000976\,p)\left(\frac{150{,}300{,}000}{T^3} - 0.0833\right)$$

The following equation may be used with the pressure in pounds per square *inch:*

$$pv = 0.5962\,T - p\,(1 + 0.0014\,p)\left(\frac{150{,}300{,}000}{T^3} - 0.0833\right).$$

The labor of calculation is principally in reducing the corrective term, and especially in the computation of the factor containing the temperature. Table XV gives values of this factor for each five degrees from 100° to 600° F.; the maximum error in the calculation of volume by aid of the table is about 0.4 of one per cent at 336 pounds pressure and 428° F.; that is at the upper limit of our table for saturated steam. At 150 pounds and 358° F., which is about the middle range of our table for saturated steam, the error is not more than 0.2 of one per cent, which is not greater than the probable error of the equation itself under those conditions. At lower pressures and at higher temperatures the error tends to diminish.

The following simple equation is proposed by Tumlirz * based on experiments by Battelli.

$$pv = BT - C_p,$$

where p is the pressure in kilograms per square metre, v the specific volume in cubic metres, and T the absolute temperature Centigrade. The constants to agree with Knoblauch's work should be

$$B = 47.10, \qquad C = 0.016.$$

In the English system with the pressure in pounds per square foot and the volumes in cubic feet, for absolute temperatures Fahrenheit,

$$pv = 85.85\,T - 0.256\,p.$$

This equation has a maximum error of 0.8 of one per cent as compared with Knoblauch's equation.

Specific Heat. — Two investigations have been made of the specific heat of superheated steam at constant pressure, one by Professor Knoblauch † and Dr. Jakob and the other by Professor Thomas

* *Math. Naturw. Kl. Wien*, 1899, IIa S. 1058.

† *Mitteilungen uber Forschungsarbeiten* Heft 36, p. 109.

and Mr. Short; * the results of the latter's investigation have been con municated for use in this book in anticipation of the publication of th completed report.

Professor Knoblauch's report gives the results of the investigatior made under his direction in the form of a table giving specific heats a various temperatures and pressures and in a diagram, which can be foun in the original memoir, and he also gives a table of mean specific hea from the temperature of saturation to various temperatures at severa pressures. This latter table is given here in both the metric system an in the English system of units.

SPECIFIC HEAT OF SUPERHEATED STEAM.

Knoblauch and Jakob.

p Kg. per Sq. Cm.		1	2	4	6	8	10	12	14	16	18	20
p Lbs. per Sq. In.		14 .2	28 .4	56 .9	85 .3	113 .8	142 .2	170 .6	199 .1	227 .5	156 .0	284 .
t_s Cent.		99°	120°	143°	158°	169°	179°	187°	194°	200°	206°	211°
t_s Fahr.		210°	248°	289°	316°	336°	350°	368°	381°	392°	403°	412°
Fahr.	Cent.											
212°	100°	0 .463	...	...	...	...	...	...	...	...	...	...
302°	150°	0 .462	0 .478	0 .515	...	...	...	...	...	...	...	...
392°	200°	0 .462	0 .475	0 .502	0 .530	0 .560	0 .597	0 .635	0 .677	...	...	...
482°	250°	0 .463	0 .474	0 .495	0 .514	0 .532	0 .552	0 .570	0 .588	0 .609	0 .635	0 .66
572°	300°	0 .464	0 .475	0 .492	0 .505	0 .517	0 .530	0 .541	0 .550	0 .561	0 .572	0 .58
662°	350°	0 .468	0 .477	0 .492	0 .503	0 .512	0 .522	0 .529	0 .536	0 .543	0 .550	0 .55
752°	400°	0 .473	0 .481	0 .494	0 .504	0 .512	0 .520	0 .526	0 .531	0 .537	0 .542	0 .54

The construction of this table is readily understood from the followin example: — *Required* the heat needed to superheat a kilogram of stea at 4 kilograms per square centimetre from saturation to 300° C. Th saturation temperature (to the nearest degree) is 143° C.; so that th steam at 300° is superheated 157°, and for this is required the heat

$$157 \times 0.492 = 77.2 \text{ calories.}$$

The experiments of Professor Knoblauch were made at 2, 4, 6, and kilograms per square centimetre; the remainder of the table was obtaine from the diagram which was extended by aid of cross-curves to the exter indicated. Within the limits of the experimental work the table may b used with confidence, the greatest error being probably not more tha

* Thesis by Mr. Short, Cornell University.

one third of one per cent. Exterpolated results are probably less reliable than those obtained directly by Professor Thomas.

The following table gives the mean specific heat of superheated steam as measured on a facsimile of Professor Thomas's original diagram without exterpolation.

SPECIFIC HEAT OF SUPERHEATED STEAM.

Thomas and Short.

Degrees of Superheat Fahr.	Pressure Lbs. per Sq. In. (Absolute.)						
	6	15	30	50	100	200	400
20°	0.536	0.547	0.558	0.571	0.593	0.621	0.649
50°	0.522	0.532	0.542	0.555	0.575	0.600	0.621
100°	0.503	0.512	0.524	0.537	0.557	0.581	0.599
150°	0.486	0.496	0.508	0.522	0.544	0.567	0.585
200°	0.471	0.480	0.424	0.509	0.533	0.556	0.574
250°	0.456	0.466	0.481	0.496	0.522	0.546	0.564
300°	0.442	0.453	0.468	0.484	0.511	0.537	0.554

Here again the arrangement of the table can be made evident by an example: — *Required* the heat needed to superheat steam 100 degrees at 200 pounds per square inch absolute. The mean specific heat from saturation is 0.557, so that the heat required is 55.7 thermal units.

Total Heat. — In the solution of problems that arise in engineering it is convenient to use the total amount of heat required to raise one pound of water from freezing-point to the temperature of saturated steam at the given pressure and to vaporize it and to superheat it at that pressure to the given temperature. This total heat may be represented by the expression

$$H = q + r + c_p (t - t_s)$$

where t is the temperature of the superheated steam, t_s is the temperature of saturated steam at the given pressure p, and q and r are the corresponding heat of the liquid and heat of vaporization. The mean specific heat c_p may usually be selected from one of the given tables without interpolation, as a small variation does not have a very large effect.

The total heats or heat contents of superheated steam in the temperature-entropy table were obtained by the following method. From Pro-

fessor Thomas's diagram giving mean specific heats, specific heats at various temperatures and at a given pressure were obtained, and the curves thus obtained were faired after a comparison with curves constructed with Professor Knoblauch's specific heats at those temperatures. These curves were then integrated graphically and the results checked by comparison with his mean specific heats.

Entropy. — By the entropy of superheated steam is meant the increase of entropy due to heating water from freezing-point to the temperature of saturated steam at the given pressure, to the vaporization and to the superheating at that pressure. This operation may be represented as follows:

$$\theta + \frac{r}{T_s} + \int_{T_s}^{T} \frac{C_p dt}{T}$$

in which T is the absolute temperature of the superheated steam, and T_s is the temperature of the saturated steam at the given pressure; θ and $\frac{r}{T}$ can be taken from Table I. The last term was obtained for the temperature-entropy table by graphical integration of curves plotted with values of $\frac{C_p}{T}$ derived from the curves of specific heats at various temperatures just described under the previous section.

Properties of Sulphur Dioxide. — One of the most interesting and important applications of the theory of superheated vapors is found in the approximate calculation of properties of certain volatile liquids which are used in refrigerating-machines, and for which we have not sufficient experimental data to construct tables in the manner followed for the fluids already discussed.

All attempts in this line have followed the example of Ledoux, who made the first attempt and who naturally took for the basis of his investigations the form of equation proposed by Zeuner for superheated steam, namely,

$$pv = BT - Cp^a.$$

Investigations by Knoblauch already discussed show that this equation can be considered only a crude approximation for steam, and consequently less confidence can be placed on investigations by its aid than we formerly thought. Nevertheless, in our present condition and until more complete experimental data are available we are constrained to

use some such approximate method, and it does not appear profitable to recompute tables at this time.

Fortunately Regnault determined the relation of temperature and pressure, and gave the following equations for pressure in millimetres of mercury, the temperature being on the Centigrade thermometer.

SULPHUR DIOXIDE.	AMMONIA.
$\log p = a - b\alpha^n - c\beta^n$	$\log p = a - b\alpha^n - c\beta^n$
$a = 5.6663790$	$a = 11.5043330$
$b = 3.0146890$	$b = 7.4503520$
$c = 0.1465400$	$c = 0.9499674$
$\log \alpha = 9.9972989 - 10$	$\log \alpha = 9.9996014 - 10$
$\log \beta = 9.9872900 - 10$	$\log \beta = 9.9939729 - 10$
$n = t + 28$	$n = t + 22$
Limits, $-28, +62$.	Limits, $-22, +82$.

The corresponding equations for pressures in pounds per square inch for temperatures Fahrenheit are:

SULPHUR DIOXIDE.	AMMONIA.
$\log p = a - b\alpha^n - c\beta^n$	$\log p = a - b\alpha^n - c\beta^n$
$a = 3.9527847$	$a = 9.7907380$
$\log b = 0.4792425$	$\log b = 0.8721769 - 10$
$\log c = 9.1659562 - 10$	$\log c = 9.9777087 - 10$
$\log \alpha = 9.9984994 - 10$	$\log \alpha = 9.9997786 - 10$
$\log \beta = 9.99293890 - 10$	$\log \beta = 9.9966516 - 10$
$n = t + 18^\circ.4$ F.	$n = t + 7.6^\circ$ F.

In the *Thermodynamics of the Steam-engine* by the author, pages 117 to 126, this calculation has been carried out with the best ascertained properties of the superheated vapors of sulphur dioxide and ammonia with the following results:

	SULPHUR DIOXIDE.	AMMONIA.
French units,	$pv = 14.5\ T - 48\ p^{0.22}$	$pv = 54.3\ T - 142 p^{\frac{1}{4}}$
English units,	$pv = 26.4\ T - 184\ p^{0.22}$	$pv = 99\ T - 710 p^{\frac{1}{4}}$

The application of these equations to the vapors when saturated gives the following results:

Heat of Vaporization.

	SULPHUR DIOXIDE.	AMMONIA.
French units,	$r = 98 - 0.27t$	$r = 300 - 0.8t$
English units,	$r = 176 - 0.27(t - 32)$	$r = 540 - 0.8\ (t - 32$

Specific Heat of the Liquid.

SULPHUR DIOXIDE.	AMMONIA.
$c = 0.4$	$c = 1.1$

Tables X and XI were calculated by aid of the equations written, an may be of use for approximate calculations, in default of more reliabl tables.

Other Data. — For convenience the following data are assembled: —

Length of the metre in inches	39.37.
Weight of the kilogram in pounds	2.2046.
Weight of 1 litre (1 cu. decimetre) of mercury . .	13.5959 kilos.
One horse power, in foot pounds per second . .	550.
Cheval à vapeur, in kilogrammetres per second . .	75.
Normal pressure of the atmosphere	760 mm. of mercury. 10,333 kilos per sq. m 14.7 lbs. per sq. in. 2116 lbs. per sq. ft. 29.921 in. of mercury.
One inch of mercury is equivalent to	0.4912 pound.
Absolute temperature of freezing-point	273° C. 491°.5 F.
Mechanical equivalent of heat.	427 meter-kilograms 778 foot-pounds.

Explanation of Tables. — Table I, which in a sense is the fundamenta table for English units, has been computed by the proper equations an methods as already explained, for each degree Fahrenheit; and may b relied upon to have no errors of calculation greater than half a unit in th last significant figure. The proper degree of accuracy to be attributed t any property may be judged from the preceding statements of data an transformations. In general, attention has been given to this matter each property being stated with the degree of accuracy considered proper avoiding superfluous figures; an exception will be found in the earlie

parts of Tables I and II where the heat of vaporization is stated to five significant figures, while the data may appear to warrant only four; but there are conveniences in keeping one decimal place throughout these tables for this property.

Table II is made by interpolation from Table I, but the work has been carried on in such a manner that it has practically the same degree of accuracy.

Table III was computed directly from the proper equation for each degree Centigrade. English equivalents are added so that ready conversions can be made from one system to the other or a combination of the two systems may be used.

Tables IV to IX were taken from "Zeuner's Mechanische Warmetheorie," making a correction for the true value of the mechanical equivalent of heat, instead of Joule's earlier value, and adding columns of entropy of the liquid.

Tables X and XI for sulphur dioxide and ammonia were calculated by the approximate method described earlier; though open to a considerable degree of error they may be used till better information can be obtained.

Tables XII and XIII do not appear to call for comment.

Table XIV has been computed to aid in reducing data from tests where pressures are recorded in inches of mercury. Pressures measured in inches of mercury are usually less than that of the atmosphere and the reading gives the vacuum, which is to be subtracted from the barometric reading to find the absolute pressure in inches of mercury. The table then gives the pressure in pounds per square inch which can be taken to Table II to find the properties of steam.

Table XV has been computed to reduce the labor of calculating the volume of superheated steam. It gives the value of the factor

$$\frac{150,300,000}{T^3} - 0.0833,$$

in Knoblauch's equation on page 21 for English units. By aid of this table the volume for a given temperature and pressure can be readily computed. The inverse calculation assuming the volume cannot be made directly, but such problems can be resolved by trial without much labor. If the pressure and volume are assumed the temperature can be found neglecting the correction term, and this will enable us to enter the table at nearly the right place.

Temperature-Entropy Table.

This table has been made to facilitate the solution of problems involving adiabatic action for steam and some other problems.

It gives for each degree Fahrenheit and for each hundredth of a unit of entropy, the quality, heat contents and specific volume, both for moist and for superheated steam. For convenience the pressures corresponding to the temperatures are also given.

The properties named may be more exactly stated as follows:—

Moist Steam

Quality, x; the portion of a pound which is steam.
Heat contents, $xr + q$.
Specific volume, $v = xu + \sigma$.

Superheated Steam

Quality, $t - t_{sat}$; the number of degrees of superheating.
Heat contents, $r + q + c_p\,(t - t_{sat})$.
Specific volume, v.

The table is arranged in groups of eight triple columns, four on each of two pages, which face each other. Such a group is continued from the highest to the lowest temperature; then comes the next group of eight triple columns, etc. Commonly the solution of a given problem may be found in a single group or in two successive groups. It is important to note this feature of arrangement to avoid aimless search.

For engineering purposes it will be found sufficient to take the nearest temperature of saturated steam and the nearest column of entropy, and to take from the corresponding place in the table the required quantities. At the highest temperature (420° F.), the error of half a degree of temperature corresponds to an error of a pound and a half in pressure; the other properties have the following errors: heat contents 0.15 of a B.T.U., and specific volume 0.008 of a cubic foot, which latter amounts to half of one per cent. At lower temperature the variation of pressure is progressively less, but the other two properties named are affected to about the same degree. Such errors if they were carried into computations and united with other errors in such a way as to occasion greater uncertainties would be liable to be inconvenient; but when found in the

final results of computations and their limits known, are not likely to cause trouble.

On the other hand the error of half a hundredth of a unit of entropy will at 400° correspond to 0.51 of a per cent of priming or moisture in the steam, and will carry a like error into all of the work. This uncertainty of using the table without interpolation will be nearly the same throughout the table.

Should the errors named be considered to be too large in any case, greater accuracy can be had by interpolation. Direct interpolation for temperature or for entropy can be made with facility; cross-interpolation will be somewhat more troublesome.

The use of the tables can best be illustrated by a few examples.

Example 1. — Given the pressure by the gauge 150.3 pounds (165 absolute) and the priming 2.0 per cent ($x = 0.980$) to find the entropy, heat contents and specific volume. This condition is found most nearly on page 78 and gives

$$\phi = 1.54 \qquad xr + q = 1176.8 \qquad v = 2.699.$$

Example 2. — Given the pressure 150.3 pounds by the gauge and the temperature 508° F., to find the entropy, heat contents and specific volume. The superheating is 142° and the temperature of saturated steam corresponding to 165 pounds absolute is 366° F. These conditions are found on page 93 and give

$$\phi = 1.65 \qquad r + q + c_p\,(t - t_s) = 1274 \qquad v = 3.395.$$

Example 3. — Required the amount of heat changed into work per pound of steam for Rankine's cycle, the initial pressure being 150.3 pounds by the gauge and the exhaust being under a vacuum of 26 inches of mercury. The steam initially has 1.0 per cent of priming, and the barometer stands at 30 inches of mercury.

The exhaust pressure is 4 inches of mercury which by Table XIV corresponds to 1.96 pound. The initial absolute pressure is found by adding the equivalent of 30 inches of mercury or

14.7 pounds to 150.3 giving 165.0.

The solution of this problem is found in the column for entropy 1.55.

	p	t	x	$xr + q$	v
Initial	165	366	.990	1185.0	2.726
Final	2	126	.784	899.1	137.4
Heat changed into work B.T.U.				285.9	

Example 4. — Required the velocity of discharge from a nozzle which takes steam at 150.3 pounds by the gauge and expands down to 26 inches of vacuum; the initial priming being .01 and the barometer being at 30 inches.

The available heat is the same as that for the previous problem, namely, 285.9 B.T.U. for an adiabatic expansion. The velocity without friction would be

$$V = \sqrt{2 \times 32.2 \times 778 \times 285.9} = 3786.$$

If an allowance of ten per cent be made for friction the velocity will be

$$V = \sqrt{2 \times 32.2 \times 778 \times 0.90 \times 285.9} = 3590.$$

The specific volume at exit can be found as follows: — The heat that would be changed into work with an allowance of ten per cent for friction will be

$$0.90 \times 285.9 = 257.2 \text{ B.T.U.}$$

Subtracting from the initial heat contents leaves

$$1185 - 257 = 928 \text{ B.T.U.}$$

for the heat contents at 126° F. at the discharge, and this property is found for the entropy 1.60; the corresponding specific volume is 142 cubic feet.

Example 5. — Suppose that the conditions of example 3 are applied to a steam-turbine which has four pressure stages. For adiabatic expansion the available heat per stage will be

$$285.9 \div 4 = 71.4 \text{ B.T.U.}$$

This quantity may be subtracted four times successively from the initial heat contents and the results will be the heat contents for the

termediate and final pressures. All the properties are to be located in e columns for entropy 1.55. The results are as follows: —

	INITIAL STAGE.	SECOND STAGE.	THIRD STAGE.	FOURTH STAGE.	DISCHARGE.
eat contents	1185.0	1113.5	1042.1	970.6	899.1
emperatures	366	299	237	180	126
ressures	165	66.2	23.7	7.50	1.99

A full discussion of this method with allowance for friction and other sses together with its limitations will be found in the author's "Thermo-ynamics of the Steam Engine."

TABLE I.

SATURATED STEAM.

ENGLISH UNITS

Temperature, Degrees Fahr. t	Pressure, Pounds per Square Inch. p	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	DENSITY. Weight, in Pounds, of One Cubic Foot. γ	Temperature, Degrees Fahr. t
32	0.0890_{36}	0.0	1091.7	1035.8	55.9	0.0000	2.2211	3395_{127}	0.0002945_{115}	32
33	0.0926_{37}	1.0	1091.0	1035.0	56.0	0.0021	2.2152	3268_{123}	0.0003060_{120}	33
34	0.0963_{39}	2.0	1090.3	1034.2	56.1	0.0041	2.2094	3145_{116}	0.0003180_{121}	34
35	0.1002_{40}	3.0	1089.6	1033.5	56.1	0.0061	2.2035	3029_{112}	0.0003301_{127}	35
36	0.1042_{41}	4.0	1088.9	1032.7	56.2	0.0082	2.1975	2917_{107}	0.0003428_{131}	36
37	0.1083_{43}	5.0	1088.2	1031.9	56.3	0.0102	2.1916	2810_{104}	0.0003559_{136}	37
38	0.1126_{44}	6.1	1087.4	1031.1	56.3	0.0122	2.1858	2706_{99}	0.0003695_{141}	38
39	0.1170_{46}	7.1	1086.7	1030.3	56.4	0.0142	2.1800	2607_{95}	0.0003836_{145}	39
40	0.1216_{48}	8.1	1086.0	1028.5	56.5	0.0163	2.1741	2512_{91}	0.0003981_{150}	40
41	0.1264_{49}	9.1	1085.3	1028.7	56.6	0.0183	2.1684	2421_{87}	0.0004131_{154}	41
42	0.1313_{51}	10.1	1084.7	1028.0	56.7	0.0203	2.1628	2334_{85}	0.0004285_{161}	42
43	0.1364_{53}	11.1	1084.0	1027.2	56.8	0.0223	2.1572	2249_{80}	0.0004446_{164}	43
44	0.1417_{54}	12.1	1083.3	1026.4	56.9	0.0243	2.1516	2169_{77}	0.0004610_{170}	44
45	0.1471_{57}	13.1	1082.6	1025.7	56.9	0.0262	2.1459	2092_{74}	0.0004780_{175}	45
46	0.1528_{58}	14.1	1081.9	1024.9	57.0	0.0282	2.1402	2018_{71}	0.0004955_{181}	46
47	0.1586_{60}	15.1	1081.2	1024.1	57.1	0.0302	2.1346	1947_{69}	0.0005136_{188}	47
48	0.1646_{62}	16.1	1080.5	1023.3	57.2	0.0322	2.1291	1878_{66}	0.0005324_{195}	48
49	0.1708_{65}	17.1	1079.8	1022.5	57.3	0.0342	2.1236	1812_{63}	0.0005519_{199}	49
50	0.1773_{66}	18.1	1079.1	1021.7	57.4	0.0361	2.1180	1749_{60}	0.0005718_{205}	50
51	0.1839_{69}	19.1	1078.4	1021.0	57.4	0.0381	2.1124	1689_{59}	0.0005923_{212}	51
52	0.1908_{71}	20.1	1077.7	1020.2	57.5	0.0401	2.1069	1630_{56}	0.0006135_{218}	52
53	0.1979_{73}	21.1	1077.0	1019.4	57.6	0.0420	2.1014	1574_{54}	0.0006353_{226}	53
54	0.2052_{76}	22.1	1076.3	1018.6	57.7	0.0440	2.0960	1520_{52}	0.0006579_{233}	54
55	0.2128_{78}	23.1	1075.6	1017.8	57.8	0.0459	2.0906	1468_{50}	0.0006812_{240}	55
56	0.2206_{81}	24.1	1074.9	1017.0	57.9	0.0479	2.0851	1418_{48}	0.0007052_{247}	56
57	0.2287_{83}	25.1	1074.2	1016.2	58.0	0.0498	2.0797	1370_{46}	0.0007299_{254}	57
58	0.2370_{86}	26.1	1073.5	1015.5	58.0	0.0517	2.0744	1324_{45}	0.0007553_{263}	58
59	0.2456_{89}	27.1	1072.8	1014.7	58.1	0.0537	2.0691	1279_{42}	0.0007816_{268}	59
60	0.2545_{92}	28.1	1072.1	1013.9	58.2	0.0556	2.0638	1237_{41}	0.0008084_{278}	60
61	0.2637_{94}	29.1	1071.4	1013.1	58.3	0.0575	2.0585	1196_{40}	0.0008362_{289}	61
62	0.2731_{98}	30.1	1070.8	1012.4	58.4	0.0594	2.0533	1156_{38}	0.0008651_{294}	62
63	0.2829_{100}	31.1	1070.1	1011.6	58.5	0.0614	2.0481	1118_{37}	0.0008945_{304}	63

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vaporization.	Heat Equivalent of Internal Work.	Heat Equivalent of External Work.	Entropy of the Liquid.	Entropy of Vaporization.	Specific Volume.	Density. Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahr.
t	p	q	r	ρ	Apu	θ	$\frac{r}{T}$	s	γ	t
64	0.2929$_{104}$	32.1	1069.4	1010.8	58.6	0.0633	2.0431	1081$_{37}$	0.0009249$_{313}$	**64**
65	0.3033$_{107}$	33.1	1068.7	1010.0	58.7	0.0652	2.0378	1044$_{33}$	0.0009562$_{326}$	**65**
66	0.3140$_{110}$	34.1	1068.0	1009.3	58.7	0.0671	2.0324	1011$_{33}$	0.0009888$_{332}$	**66**
67	0.3250$_{114}$	35.1	1067.3	1008.5	58.8	0.0690	2.0272	978.5$_{316}$	0.001022$_{35}$	**67**
68	0.3364$_{117}$	36.1	1066.6	1007.7	58.9	0.0709	2.0221	946.9$_{305}$	0.001057$_{35}$	**68**
69	0.3481$_{121}$	37.1	1065.9	1006.9	59.0	0.0728	2.0169	916.4$_{294}$	0.001092$_{36}$	**69**
70	0.3602$_{124}$	38.1	1065.2	1006.1	59.1	0.0747	2.0118	887.0$_{283}$	0.001128$_{37}$	**70**
71	0.3726$_{128}$	39.1	1064.5	1005.3	59.2	0.0766	2.0066	858.7$_{273}$	0.001165$_{38}$	**71**
72	0.3854$_{132}$	40.1	1063.8	1004.5	59.3	0.0784	2.0015	831.4$_{264}$	0.001203$_{39}$	**72**
73	0.3986$_{136}$	41.1	1063.1	1003.7	59.4	0.0803	1.9964	805.0$_{254}$	0.001242$_{41}$	**73**
74	0.4122$_{140}$	42.1	1062.4	1002.9	59.5	0 0822	1.9914	779.6$_{244}$	0.001283$_{42}$	**74**
75	0.4262$_{144}$	43.1	1061.7	1002.2	59.5	0.0841	1.9863	755.2$_{237}$	0.001325$_{42}$	**75**
76	0.4406$_{149}$	44.1	1061.0	1001.4	59.6	0.0859	1.9813	731.5$_{228}$	0.001367$_{44}$	**76**
77	0.4555$_{153}$	45.1	1060.3	1000.6	59.7	0.0878	1.9763	708.7$_{219}$	0.001411$_{45}$	**77**
78	0.4708$_{157}$	46.1	1059.6	999.8	59.8	0.0896	1.9713	686.8$_{212}$	0.001456$_{46}$	**78**
79	0.4865$_{162}$	47.1	1058.9	999.0	59.9	0.0915	1.9663	665.6$_{204}$	0.001502$_{48}$	**79**
80	0.5027$_{167}$	48.1	1058.2	998.2	60.0	0.0934	1.9614	645.2$_{197}$	0.001550$_{49}$	**80**
81	0.5194$_{171}$	49.1	1057.5	997.4	60.1	0.0952	1.9565	625.5$_{191}$	0.001599$_{50}$	**81**
82	0.5365$_{177}$	50.1	1056.9	996.7	60.2	0.0971	1.9516	606.4$_{185}$	0.001649$_{52}$	**82**
83	1.5542$_{181}$	51.1	1056.2	995.9	60.3	0.0989	1.9468	587.9$_{178}$	0.001701$_{53}$	**83**
84	0.5723$_{187}$	52.1	1055.5	995.1	60.4	0.1007	1.9420	570.1$_{171}$	0.001754$_{54}$	**84**
85	0.5910$_{192}$	53.1	1054.8	994.3	60.5	0.1026	1.9372	553.0$_{166}$	0.001808$_{55}$	**85**
86	0.6102$_{197}$	54.1	1054.1	993.6	60.5	0.1044	1.9324	536.4$_{160}$	0.001864$_{58}$	**86**
87	0.6299$_{203}$	55.1	1053.4	992.8	60.6	0.1062	1.9276	520.4$_{156}$	0.001922$_{59}$	**87**
88	0.6502$_{209}$	56.1	1052.7	992.0	60.7	0.1081	1.9228	504.8$_{148}$	0.001981$_{60}$	**88**
89	0.6711$_{214}$	57.1	1052.0	991.2	60.8	0.1099	1.9180	490.0$_{144}$	0.002041$_{62}$	**89**
90	0.6925$_{221}$	58.1	1051.3	990.4	60.9	0.1117	1.9132	475.6$_{139}$	0.002103$_{64}$	**90**
91	0.7146$_{226}$	59.1	1050.6	989.6	61.0	0.1135	1.9085	461.7$_{136}$	0.002167$_{65}$	**91**
92	0.7372$_{233}$	60.1	1049.9	988.8	61.1	0.1153	1.9037	448.1$_{131}$	0.002232$_{67}$	**92**
93	0.7605$_{239}$	61.1	1049.2	988.0	61.2	0.1171	1.8990	435.0$_{126}$	0.002299$_{68}$	**93**
94	0.7844$_{246}$	62.1	1048.5	987.2	61.3	0.1189	1.8943	422.4$_{122}$	0.002367$_{71}$	**94**
95	0.8090$_{252}$	63.1	1047.8	986.4	61.4	0.1207	1.8896	410.2$_{118}$	0.002438$_{73}$	**95**
96	0.8342$_{259}$	64.1	1047.1	985.6	61.5	0.1225	1.8850	398.4$_{115}$	0.002511$_{74}$	**96**
97	0.8601$_{266}$	65.0	1046.5	984.9	61.6	0.1243	1.8805	386.9$_{110}$	0.002585$_{75}$	**97**
98	0.8867$_{273}$	66.0	1045.8	984.1	61.7	0.1261	1.8759	375.9$_{107}$	0.002660$_{78}$	**98**
99	0.9140$_{281}$	67.0	1045.1	983.3	61.8	0.1279	1.8713	365.2$_{105}$	0.002738$_{80}$	**99**
100	0.9421$_{288}$	68.0	1044.4	982.6	61.8	0.1297	1.8667	354.7$_{99}$	0.002818$_{82}$	**100**
101	0.9709$_{291}$	69.0	1043.7	981.8	61.9	0.1314	1.8621	344.8$_{96}$	0.002900$_{84}$	**101**
102	1.000$_{31}$	70.0	1043.1	981.1	62.0	0.1332	1.8575	335.2$_{93}$	0.002984$_{85}$	**102**
103	1.031$_{31}$	71.0	1042.4	980.3	62.1	0.1350	1.8530	325.9$_{91}$	0.003069$_{88}$	**103**
104	1.062$_{32}$	72.0	1041.7	979.5	62.2	0.1368	1.8485	316.8$_{88}$	0.003157$_{90}$	**104**

Temperature, Degrees Fahr. t	Pressure, Pounds per Square Inch. p	Diff.	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Diff.	Density. Weight, in Pounds, of One Cubic Foot. γ	Diff.	Temperature, Degrees Fahr. t
105	1.094	33	73.0	1041.0	978.7	62.3	0.1385	1.8440	308.0	86	0.003247	93	105
106	1.127	33	74.0	1040.3	977.9	62.4	0.1403	1.8396	299.4	82	0.003340	94	106
107	1.160	35	75.0	1039.6	977.1	62.5	0.1421	1.8351	291.2	79	0.003434	96	107
108	1.195	35	76.0	1038.9	976.3	62.6	0.1438	1.8306	283.3	77	0.003530	98	108
109	1.230	36	77.0	1038.2	975.5	62.7	0.1456	1.8261	275.6	75	0.003628	102	109
110	1.266	38	78.0	1037.5	974.7	62.8	0.1473	1.8217	268.1	72	0.003730	104	110
111	1.304	38	79.0	1036.8	973.9	62.9	0.1491	1.8173	260.9	71	0.003834	106	111
112	1.342	39	80.0	1036.1	973.1	63.0	0.1508	1.8129	253.8	68	0.003940	109	112
113	1.381	40	81.0	1035.4	972.3	63.1	0.1526	1.8085	247.0	66	0.004049	111	113
114	1.421	41	82.0	1034.7	971.5	63.2	0.1543	1.8042	240.4	64	0.004160	114	114
115	1.462	42	83.0	1034.0	970.7	63.3	0.1560	1.7998	234.0	62	0.004274	116	115
116	1.504	43	84.0	1033.3	969.9	63.4	0.1578	1.7955	227.8	60	0.004390	119	116
117	1.547	44	85.0	1032.6	969.1	63.5	0.1595	1.7912	221.8	58	0.004509	121	117
118	1.591	45	86.0	1031.9	968.3	63.6	0.1612	1.7868	216.0	57	0.004630	125	118
119	1.636	47	87.0	1031.2	967.5	63.7	0.1630	1.7825	210.3	55	0.004755	128	119
120	1.683	47	88.0	1030.5	966.7	63.8	0.1647	1.7782	204.8	53	0.004883	130	120
121	1.730	49	89.0	1029.8	966.0	63.8	0.1664	1.7740	199.5	52	0.005013	134	121
122	1.779	50	90.0	1029.2	965.3	63.9	0.1682	1.7699	194.3	50	0.005147	136	122
123	1.829	51	91.0	1028.5	964.5	64.0	0.1699	1.7657	189.3	48	0.005283	138	123
124	1.880	52	92.0	1027.8	963.7	64.1	0.1716	1.7615	184.5	47	0.005421	141	124
125	1.932	53	93.0	1027.1	962.9	64.2	0.1733	1.7573	179.8	46	0.005562	146	125
126	1.985	55	94.0	1026.4	962.1	64.3	0.1750	1.7531	175.2	45	0.005708	149	126
127	2.040	56	95.0	1025.7	961.3	64.4	0.1767	1.7489	170.7	43	0.005857	153	127
128	2.096	57	96.0	1025.0	960.5	64.5	0.1784	1.7447	166.4	41	0.006010	155	128
129	2.153	59	97.0	1024.3	959.7	64.6	0.1801	1.7405	162.3	42	0.006165	159	129
130	2.212	60	98.0	1023.6	958.9	64.7	0.1818	1.7364	158.1	39	0.006324	161	130
131	2.272	61	99.0	1022.9	958.1	64.8	0.1835	1.7323	154.2	38	0.006485	164	131
132	2.333	63	100.0	1022.2	957.3	64.9	0.1852	1.7281	150.4	37	0.006649	168	132
133	2.396	64	101.0	1021.5	956.5	65.0	0.1869	1.7240	146.7	36	0.006817	173	133
134	2.460	66	102.0	1020.8	955.7	65.1	0.1886	1.7200	143.1	36	0.006990	176	134
135	2.526	67	103.0	1020.1	954.9	65.2	0.1902	1.7159	139.5	34	0.007166	179	135
136	2.593	69	104.0	1019.4	954.1	65.3	0.1919	1.7118	136.1	33	0.007345	183	136
137	2.662	70	105.0	1018.7	953.3	65.4	0.1936	1.7078	132.8	32	0.007528	185	137
138	2.732	72	106.0	1018.0	952.5	65.5	0.1952	1.7037	129.6	31	0.007713	191	138
139	2.804	73	107.0	1017.3	951.7	65.6	0.1969	1.6997	126.5	31	0.007904	196	139
140	2.877	76	108.0	1016.6	950.9	65.7	0.1986	1.6957	123.4	30	0.008100	198	140
141	2.953	76	109.0	1015.9	950.1	65.8	0.2002	1.6918	120.4	29	0.008298	204	141
142	3.029	79	110.0	1015.3	949.4	65.9	0.2019	1.6879	117.5	28	0.008502	208	142
143	3.108	80	111.0	1014.6	948.6	66.0	0.2036	1.6840	114.7	27	0.008710	209	143
144	3.188	82	112.0	1013.9	947.8	66.1	0.2052	1.6800	112.0	26	0.008929	214	144
145	3.270	83	113.0	1013.2	947.0	66.2	0.2069	1.6761	109.4	26	0.009143	220	145

Temperature, Degrees Fahr. t	Pressure, Pounds per Square Inch. p	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Density. Weight, in Pounds, of One Cubic Foot. γ	Temperature, Degrees Fahr. t
146	3.353_{86}	114.0	1012.5	946.2	66.3	0.2085	1.6722	106.8_{25}	0.009363_{225}	**146**
147	3.439_{87}	115.0	1011.8	945.4	66.4	0.2102	1.6683	104.3_{24}	0.009588_{228}	**147**
148	3.526_{89}	116.0	1011.1	944.6	66.5	0.2118	1.6644	101.9_{24}	0.009816_{234}	**148**
149	3.615_{91}	117.0	1010.4	943.8	66.6	0.2135	1.6605	99.54_{230}	0.01005_{23}	**149**
150	3.706_{93}	118.0	1009.7	943.0	66.7	0.2151	1.6566	97.24_{225}	0.01028_{24}	**150**
151	3.799_{95}	119.0	1009.0	942.2	66.8	0.2168	1.6527	94.99_{218}	0.01052_{25}	**151**
152	3.894_{97}	120.0	1008.3	941.5	66.8	0.2184	1.6488	92.81_{213}	0.01077_{25}	**152**
153	3.991_{99}	121.0	1007.6	940.7	66.9	0.2200	1.6450	90.68_{206}	0.01102_{26}	**153**
154	4.090_{101}	122.0	1006.9	939.9	67.0	0.2217	1.6412	88.62_{201}	0.01128_{27}	**154**
155	4.191_{104}	123.0	1006.2	939.1	67.1	0.2233	1.6374	86.61_{195}	0.01155_{27}	**155**
156	4.295_{105}	124.0	1005.5	938.3	67.2	0.2249	1.6336	84.66_{192}	0.01182_{27}	**156**
157	4.400_{108}	125.0	1004.8	937.5	67.3	0.2265	1.6298	82.74_{186}	0.01209_{27}	**157**
158	4.508_{109}	126.0	1004.1	936.7	67.4	0.2282	1.6261	80.88_{181}	0.01236_{28}	**158**
159	4.617_{112}	127.0	1003.4	935.9	67.5	0.2298	1.6224	79.07_{176}	0.01264_{29}	**159**
160	4.729_{115}	128.0	1002.7	935.1	67.6	0.2314	1.6186	77.31_{171}	0.01293_{30}	**160**
161	4.844_{116}	129.0	1002.0	934.3	67.7	0.2330	1.6148	75.60_{167}	0.01323_{30}	**161**
162	4.960_{119}	130.0	1001.4	933.6	67.8	0.2347	1.6111	73.93_{163}	0.01353_{30}	**162**
163	5.079_{121}	131.0	1000.7	932.8	67.9	0.2363	1.6075	72.30_{158}	0.01383_{31}	**163**
164	5.200_{124}	132.0	1000.0	932.0	68.0	0.2379	1.6038	70.72_{155}	0.01414_{32}	**164**
165	5.324_{126}	133.0	999.3	931.2	68.1	0.2395	1.6002	69.17_{150}	0.01446_{32}	**165**
166	5.450_{129}	134.0	998.6	930.4	68.2	0.2411	1.5965	67.67_{146}	0.01478_{32}	**166**
167	5.579_{131}	135.0	997.9	929.6	68.3	0.2427	1.5928	66.21_{144}	0.01510_{34}	**167**
168	5.710_{134}	136.0	997.2	928.8	68.4	0.2443	1.5891	64.77_{140}	0.01544_{34}	**168**
169	5.844_{137}	137.0	996.5	928.0	68.5	0.2459	1.5855	63.37_{137}	0.01578_{35}	**169**
170	5.981_{139}	138.0	995.8	927.2	68.6	0.2475	1.5819	62.00_{133}	0.01613_{35}	**170**
171	6.120_{142}	139.0	995.1	926.4	68.7	0.2491	1.5783	60.67_{128}	0.01648_{36}	**171**
172	6.262_{145}	140.0	994.4	925.6	68.8	0.2506	1.5747	59.39_{126}	0.01684_{36}	**172**
173	6.407_{147}	141.0	993.7	924.8	68.9	0.2522	1.5711	58.13_{123}	0.01720_{37}	**173**
174	6.554_{150}	142.0	993.0	924.1	68.9	0.2538	1.5675	56.90_{120}	0.01757_{38}	**174**
175	6.704_{154}	143.0	992.3	923.3	69.0	0.2554	1.5639	55.70_{116}	0.01795_{39}	**175**
176	6.858_{156}	144.0	991.6	922.5	69.1	0.2570	1.5604	54.54_{115}	0.01834_{39}	**176**
177	7.014_{159}	145.0	990.9	921.7	69.2	0.2585	1.5569	53.39_{112}	0.01873_{40}	**177**
178	7.173_{162}	146.0	990.2	920.9	69.3	0.2601	1.5533	52.27_{108}	0.01913_{41}	**178**
179	7.335_{165}	147.0	989.5	920.1	69.4	0.2617	1.5498	51.19_{105}	0.01954_{41}	**179**
180	7.500_{168}	148.0	988.8	919.3	69.5	0.2633	1.5463	50.14_{104}	0.01995_{42}	**180**
181	7.668_{172}	149.0	988.1	918.5	69.6	0.2648	1.5428	49.10_{101}	0.02037_{43}	**181**
182	7.840_{174}	150.1	987.4	917.7	69.7	0.2664	1.5393	48.09_{98}	0.02080_{43}	**182**
183	8.014_{178}	151.1	986.7	916.9	69.8	0.2680	1.5358	47.11_{96}	0.02123_{44}	**183**
184	8.192_{181}	152.1	986.0	916.1	69.9	0.2696	1.5323	46.15_{95}	0.02167_{45}	**184**
185	8.373_{185}	153.1	985.3	915.3	70.0	0.2711	1.5288	45.20_{92}	0.02212_{46}	**185**
186	8.558_{188}	154.1	984.6	914.5	70.1	0.2727	1.5254	44.28_{90}	0.02258_{47}	**186**

Temperature, Degrees Fahr. t	Pressure, Pounds per Square Inch. p	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Density. Weight, in Pounds, of One Cubic Foot. γ	Temperature, Degrees Fahr. t
187	8.746$_{191}$	155.1	983.9	913.8	70.1	0.2742	1.5219	43.38$_{87}$	0.02305$_{47}$	187
188	8.937$_{195}$	156.1	983.2	913.0	70.2	0.2758	1.5185	42.51$_{85}$	0.02352$_{48}$	188
189	9.132$_{198}$	157.1	982.5	912.2	70.3	0.2773	1.5150	41.66$_{83}$	0.02400$_{49}$	189
190	9.330$_{202}$	158.1	981.8	911.4	70.4	0.2789	1.5116	40.83$_{82}$	0.02449$_{50}$	190
191	9.532$_{206}$	159.1	981.1	910.6	70.5	0.2805	1.5082	40.01$_{79}$	0.02499$_{51}$	191
192	9.738$_{209}$	160.1	980.4	909.8	70.6	0.2820	1.5048	39.22$_{78}$	0.02550$_{51}$	192
193	9.947$_{213}$	161.1	979.7	909.0	70.7	0.2835	1.5015	38.44$_{76}$	0.02601$_{53}$	193
194	10.16$_{22}$	162.1	979.0	908.2	70.8	0.2851	1.4981	37.68$_{74}$	0.02654$_{54}$	194
195	10.38$_{22}$	163.1	978.3	907.4	70.9	0.2866	1.4947	36.94$_{73}$	0.02708$_{54}$	195
196	10.60$_{22}$	164.1	977.6	906.7	70.9	0.2882	1.4913	36.21$_{71}$	0.02762$_{55}$	196
197	10.82$_{23}$	165.1	976.9	905.9	71.0	0.2897	1.4880	35.50$_{69}$	0.02817$_{56}$	197
198	11.05$_{23}$	166.2	976.1	905.0	71.1	0.2912	1.4846	34.81$_{67}$	0.02873$_{56}$	198
199	11.28$_{24}$	167.2	975.4	904.2	71.2	0.2928	1.4813	34.14$_{66}$	0.02929$_{58}$	199
200	11.52$_{24}$	168.2	974.7	903.4	71.3	0.2943	1.4779	33.48$_{64}$	0.02987$_{59}$	200
201	11.76$_{24}$	169.2	974.0	902.6	71.4	0.2958	1.4746	32.84$_{64}$	0.03046$_{60}$	201
202	12.00$_{25}$	170.2	973.4	901.9	71.5	0.2973	1.4714	32.20$_{61}$	0.03106$_{60}$	202
203	12.25$_{26}$	171.2	972.7	901.2	71.5	0.2989	1.4682	31.59$_{60}$	0.03166$_{61}$	203
204	12.51$_{26}$	172.2	972.0	900.4	71.6	0.3004	1.4650	30.99$_{59}$	0.03227$_{62}$	204
205	12.77$_{26}$	173.2	971.3	899.6	71.7	0.3019	1.4617	30.40$_{57}$	0.03289$_{63}$	205
206	13.03$_{26}$	174.2	970.6	898.8	71.8	0.3034	1.4585	29.83$_{57}$	0.03352$_{66}$	206
207	13.29$_{27}$	175.2	969.9	898.0	71.9	0.3049	1.4552	29.26$_{56}$	0.03418$_{66}$	207
208	13.56$_{28}$	176.2	969.2	897.2	72.0	0.3064	1.4520	28.70$_{54}$	0.03484$_{67}$	208
209	13.84$_{28}$	177.2	968.5	896.5	72.0	0.3079	1.4488	28.16$_{53}$	0.03551$_{68}$	209
210	14.12$_{29}$	178.3	967.7	895.6	72.1	0.3095	1.4455	27.63$_{52}$	0.03619$_{70}$	210
211	14.41$_{29}$	179.3	967.0	894.8	72.2	0.3110	1.4422	27.11$_{45}$	0.03689$_{62}$	211
212	14.70$_{29}$	180.3	966.3	893.9	72.4	0.3125	1.4390	26.66$_{45}$	0.03751$_{66}$	212
213	14.99$_{30}$	181.3	965.6	893.0	72.6	0.3140	1.4358	26.21$_{48}$	0.03817$_{70}$	213
214	15.29$_{30}$	182.3	964.9	892.2	72.7	0.3155	1.4326	25.73$_{48}$	0.03887$_{73}$	214
215	15.59$_{31}$	183.3	964.2	891.4	72.8	0.3170	1.4295	25.25$_{46}$	0.03960$_{74}$	215
216	15.90$_{31}$	184.3	963.5	890.6	72.9	0.3185	1.4263	24.79$_{45}$	0.04034$_{74}$	216
217	16.21$_{32}$	185.3	962.8	889.9	72.9	0.3200	1.4232	24.34$_{44}$	0.04108$_{76}$	217
218	16.53$_{33}$	186.3	962.1	889.1	73.0	0.3215	1.4200	23.90$_{44}$	0.04184$_{79}$	218
219	16.86$_{33}$	187.4	961.3	888.2	73.1	0.3230	1.4168	23.46$_{43}$	0.04263$_{79}$	219
220	17.19$_{33}$	188.4	960.6	887.5	73.1	0.3244	1.4137	23.03$_{42}$	0.04342$_{81}$	220
221	17.52$_{34}$	189.4	959.9	886.7	73.2	0.3259	1.4106	22.61$_{41}$	0.04423$_{82}$	221
222	17.86$_{35}$	190.4	959.3	886.0	73.3	0.3274	1.4075	22.20$_{39}$	0.04505$_{82}$	222
223	18.21$_{35}$	191.4	958.6	885.2	73.4	0.3289	1.4045	21.81$_{39}$	0.04587$_{83}$	223
224	18.50$_{35}$	192.4	957.9	884.4	73.5	0.3304	1.4014	21.42$_{38}$	0.04670$_{84}$	224
225	18.91$_{37}$	193.4	957.2	883.7	73.5	0.3319	1.3984	21.04$_{37}$	0.04754$_{86}$	225
226	19.28$_{37}$	194.4	956.5	882.9	73.6	0.3333	1.3954	20.67$_{38}$	0.04840$_{89}$	226
227	19.65$_{37}$	195.4	955.8	882.1	73.7	0.3348	1.3923	20.29$_{36}$	0.04929$_{89}$	227

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t	p	q	r	ρ	Apu	θ	$\frac{r}{T}$	s	γ	t
228	20.02_{38}	196.5	955.0	881.2	73.8	0.3363	1.3892	19.93_{35}	0.05018_{89}	**228**
229	20.40_{38}	197.5	954.3	880.5	73.8	0.3378	1.3861	19.58_{34}	0.05107_{90}	**229**
230	20.78_{39}	198.5	953.6	879.7	73.9	0.3392	1.3831	19.24_{33}	0.05197_{92}	**230**
231	21.17_{40}	199.5	952.9	878.9	74.0	0.3407	1.3800	18.91_{33}	0.05289_{94}	**231**
232	21.57_{41}	200.5	952.2	878.2	74.0	0.3422	1.3770	18.58_{32}	0.05383_{95}	**232**
233	21.98_{41}	201.5	951.5	877.4	74.1	0.3436	1.3740	18.26_{32}	0.05478_{97}	**233**
234	22.39_{41}	202.5	950.8	876.6	74.2	0.3451	1.3710	17.94_{31}	0.05575_{99}	**234**
235	22.80_{43}	203.6	950.0	875.7	74.3	0.3466	1.3679	17.63_{30}	0.05674_{99}	**235**
236	23.23_{43}	204.6	949.3	874.9	74.4	0.3480	1.3649	17.33_{30}	0.05773_{101}	**236**
237	23.66_{43}	205.6	948.6	874.2	74.4	0.3495	1.3619	17.03_{29}	0.05874_{102}	**237**
238	24.09_{44}	206.6	947.9	873.4	74.5	0.3509	1.3590	16.74_{29}	0.05976_{103}	**238**
239	24.53_{45}	207.6	947.2	872.6	74.6	0.3524	1.3560	16.45_{28}	0.06079_{105}	**239**
240	24.98_{46}	208.6	946.5	871.9	74.6	0.3538	1.3531	16.17_{27}	0.06184_{106}	**240**
241	25.44_{46}	209.6	945.8	871.1	74.7	0.3553	1.3502	15.90_{27}	0.06290_{107}	**241**
242	25.90_{47}	210.7	945.1	870.3	74.8	0.3567	1.3473	15.63_{26}	0.06397_{109}	**242**
243	26.37_{48}	211.7	944.4	869.5	74.9	0.3582	1.3444	15.37_{26}	0.06506_{111}	**243**
244	26.85_{48}	212.7	943.7	868.7	75.0	0.3596	1.3415	15.11_{25}	0.06617_{112}	**244**
245	27.33_{49}	213.7	943.0	868.0	75.0	0.3611	1.3386	14.86_{25}	0.06729_{114}	**245**
246	27.82_{50}	214.7	942.3	867.2	75.1	0.3625	1.3357	14.61_{24}	0.06843_{115}	**246**
247	28.32_{50}	215.7	941.6	866.4	75.2	0.3639	1.3328	14.37_{23}	0.06958_{116}	**247**
248	28.82_{52}	216.7	940.9	865.6	75.3	0.3654	1.3299	14.14_{23}	0.07074_{118}	**248**
249	29.34_{52}	217.7	940.2	864.8	75.4	0.3668	1.3270	13.91_{23}	0.07192_{120}	**249**
250	29.86_{52}	218.8	939.4	864.0	75.4	0.3683	1.3241	13.68_{22}	0.07312_{121}	**250**
251	30.38_{54}	219.8	938.7	863.2	75.5	0.3697	1.3212	13.46_{22}	0.07433_{122}	**251**
252	30.92_{54}	220.8	938.0	862.4	75.6	0.3711	1.3183	13.24_{22}	0.07555_{126}	**252**
253	31.46_{55}	221.8	937.3	861.6	75.7	0.3726	1.3154	13.02_{21}	0.07680_{128}	**253**
254	32.01_{56}	222.8	936.6	860.9	75.7	0.3740	1.3126	12.81_{21}	0.07808_{128}	**254**
255	32.57_{57}	223.8	935.9	860.1	75.8	0.3754	1.3098	12.60_{21}	0.07936_{128}	**255**
256	33.14_{57}	224.9	935.1	859.2	75.9	0.3768	1.3070	12.39_{20}	0.08064_{132}	**256**
257	33.71_{58}	225.9	934.4	858.4	76.0	0.3782	1.3042	12.19_{19}	0.08196_{133}	**257**
258	34.29_{59}	226.9	933.7	857.7	76.0	0.3797	1.3014	12.00_{19}	0.08329_{135}	**258**
259	34.88_{60}	227.9	933.0	856.9	76.1	0.3811	1.2986	11.81_{19}	0.08464_{137}	**259**
260	35.48_{61}	229.0	932.2	856.0	76.2	0.3825	1.2957	11.62_{18}	0.08601_{138}	**260**
261	36.09_{62}	230.0	931.5	855.2	76.3	0.3839	1.2929	11.44_{18}	0.08739_{140}	**261**
262	36.71_{62}	231.0	930.9	854.5	76.4	0.3853	1.2902	11.26_{18}	0.08879_{142}	**262**
263	37.33_{63}	232.0	930.2	853.8	76.4	0.3867	1.2875	11.08_{17}	0.09021_{143}	**263**
264	37.96_{64}	233.0	929.5	853.0	76.5	0.3881	1.2848	10.91_{17}	0.09164_{145}	**264**
265	38.60_{65}	234.0	928.8	852.2	76.6	0.3895	1.2820	10.74_{17}	0.09309_{146}	**265**
266	39.25_{66}	235.0	928.1	851.4	76.7	0.3909	1.2792	10.57_{16}	0.09455_{150}	**266**
267	39.91_{67}	236.1	927.3	850.6	76.7	0.3923	1.2764	10.41_{16}	0.09604_{151}	**267**
268	40.58_{68}	237.1	926.6	849.8	76.8	0.3937	1.2737	10.25_{16}	0.09755_{152}	**268**

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269	41.26$_{69}$	238.1	925.9	849.0	76.9	0.3951	1.2710	10.09$_{15}$	0.09907$_{153}$	269
270	41.95$_{69}$	239.1	925.2	848.2	77.0	0.3965	1.2683	9.937$_{152}$	0.1006$_{16}$	270
271	42.64$_{71}$	240.2	924.4	847.4	77.0	0.3979	1.2655	9.785$_{149}$	0.1022$_{16}$	271
272	43.35$_{71}$	241.2	923.7	846.6	77.1	0.3993	1.2628	9.636$_{147}$	0.1038$_{16}$	272
273	44.06$_{72}$	242.2	923.0	845.8	77.2	0.4007	1.2601	9.489$_{144}$	0.1054$_{16}$	273
274	44.78$_{74}$	243.2	922.3	845.0	77.3	0.4021	1.2574	9.345$_{141}$	0.1070$_{16}$	274
275	45.52$_{74}$	244.2	921.6	844.2	77.4	0.4035	1.2547	9.204$_{138}$	0.1086$_{17}$	275
276	46.26$_{75}$	245.3	920.8	843.4	77.4	0.4049	1.2520	9.066$_{136}$	0.1103$_{17}$	276
277	47.01$_{76}$	246.3	920.1	842.6	77.5	0.4063	1.2493	8.930$_{134}$	0.1120$_{17}$	277
278	47.77$_{78}$	247.3	919.4	841.8	77.6	0.4077	1.2466	8.796$_{132}$	0.1137$_{17}$	278
279	48.55$_{78}$	248.3	918.7	841.0	77.7	0.4091	1.2440	8.664$_{128}$	0.1154$_{17}$	279
280	49.33$_{79}$	249.4	917.9	840.2	77.7	0.4104	1.2413	8.536$_{126}$	0.1171$_{18}$	280
281	50.12$_{80}$	250.4	917.2	839.4	77.8	0.4118	1.2387	8.410$_{125}$	0.1189$_{18}$	281
282	50.92$_{82}$	251.4	916.6	838.7	77.9	0.4132	1.2361	8.285$_{123}$	0.1207$_{18}$	282
283	51.74$_{82}$	252.4	915.9	837.9	78.0	0.4146	1.2335	8.162$_{119}$	0.1225$_{18}$	283
284	52.56$_{83}$	253.4	915.2	837.1	78.1	0.4160	1.2309	8.043$_{117}$	0.1243$_{18}$	284
285	53.39$_{85}$	254.5	914.4	836.3	78.1	0.4173	1.2283	7.926$_{116}$	0.1261$_{19}$	285
286	54.24$_{85}$	255.5	913.7	835.5	78.2	0.4187	1.2257	7.810$_{113}$	0.1280$_{19}$	286
287	55.09$_{87}$	256.5	913.0	834.7	78.3	0.4201	1.2231	7.697$_{111}$	0.1299$_{19}$	287
288	55.96$_{87}$	257.5	912.3	833.9	78.4	0.4215	1.2205	7.586$_{111}$	0.1318$_{19}$	288
289	56.83$_{89}$	258.6	911.5	833.1	78.4	0.4228	1.2179	7.475$_{108}$	0.1337$_{20}$	289
290	57.72$_{90}$	259.6	910.8	832.3	78.5	0.4242	1.2153	7.367$_{105}$	0.1357$_{20}$	290
291	58.62$_{91}$	260.6	910.1	831.5	78.6	0.4255	1.2127	7.262$_{103}$	0.1377$_{20}$	291
292	59.53$_{92}$	261.6	909.4	830.7	78.7	0.4269	1.2101	7.159$_{103}$	0.1397$_{20}$	292
293	60.45$_{93}$	262.7	908.6	829.9	78.7	0.4283	1.2075	7.056$_{100}$	0.1417$_{20}$	293
294	61.38$_{95}$	263.7	907.9	829.1	78.8	0.4297	1.2049	6.956$_{99}$	0.1437$_{21}$	294
295	62.33$_{95}$	264.7	907.2	828.3	78.9	0.4310	1.2023	6.857$_{97}$	0.1458$_{21}$	295
296	63.28$_{97}$	265.7	906.5	827.5	79.0	0.4324	1.1998	6.760$_{95}$	0.1479$_{21}$	296
297	64.25$_{98}$	266.7	905.8	826.7	79.1	0.4337	1.1972	6.665$_{94}$	0.1500$_{21}$	297
298	65.23$_{99}$	267.8	905.0	825.9	79.1	0.4351	1.1947	6.571$_{92}$	0.1521$_{22}$	298
299	66.22$_{100}$	268.8	904.3	825.1	79.2	0.4364	1.1922	6.479$_{91}$	0.1543$_{22}$	299
300	67.22$_{102}$	269.8	903.6	824.3	79.3	0.4378	1.1897	6.388$_{88}$	0.1565$_{22}$	300
301	68.24$_{103}$	270.8	902.9	823.5	79.4	0.4391	1.1872	6.300$_{87}$	0.1587$_{22}$	301
302	69.27$_{103}$	271.9	902.2	822.8	79.4	0.4405	1.1847	6.213$_{87}$	0.1609$_{23}$	302
303	70.30$_{106}$	272.9	901.5	822.0	79.5	0.4418	1.1822	6.126$_{84}$	0.1632$_{23}$	303
304	71.36$_{106}$	273.9	900.8	821.2	79.6	0.4432	1.1799	6.042$_{83}$	0.1655$_{23}$	304
305	72.42$_{108}$	274.9	900.1	820.4	79.7	0.4445	1.1774	5.959$_{81}$	0.1678$_{23}$	305
306	73.50$_{109}$	276.0	899.3	819.5	79.8	0.4458	1.1749	5.878$_{80}$	0.1701$_{24}$	306
307	74.59$_{110}$	277.0	898.6	818.8	79.8	0.4472	1.1724	5.798$_{80}$	0.1725$_{24}$	307
308	75.69$_{111}$	278.0	897.9	818.0	79.9	0.4485	1.1699	5.718$_{78}$	0.1749$_{24}$	308
309	76.80$_{113}$	279.1	897.1	817.1	80.0	0.4499	1.1674	5.640$_{76}$	0.1773$_{24}$	309

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310	77.93	114	280.1	896.4	816.4	80.0	0.4512	1.1649	5.564	74	0.1797	24	**310**
311	79.07	116	281.1	895.7	815.6	80.1	0.4525	1.1625	5.490	74	0.1821	25	**311**
312	80.23	116	282.1	895.0	814.8	80.2	0.4538	1.1600	5.416	73	0.1846	25	**312**
313	81.39	118	283.2	894.2	813.9	80.3	0.4552	1.1576	5.343	71	0.1871	26	**313**
314	82.57	120	284.2	893.5	813.2	80.3	0.4565	1.1551	5.272	71	0.1897	26	**314**
315	83.77	121	285.2	892.8	812.4	80.4	0.4578	1.1527	5.201	69	0.1923	26	**315**
316	84.98	122	286.2	892.1	811.6	80.5	0.4592	1.1503	5.132	68	0.1949	26	**316**
317	86.20	123	287.3	891.3	810.8	80.5	0.4605	1.1479	5.064	67	0.1975	26	**317**
318	87.43	125	288.3	890.6	810.0	80.6	0.4618	1.1455	4.997	66	0.2001	27	**318**
319	88.68	127	289.3	889.9	809.2	80.7	0.4631	1.1431	4.931	64	0.2028	27	**319**
320	89.95	128	290.4	889.1	808.3	80.8	0.4644	1.1407	4.867	64	0.2055	27	**320**
321	91.23	129	291.4	888.4	807.6	80.8	0.4658	1.1383	4.803	62	0.2082	27	**321**
322	92.52	130	292.4	887.8	806.9	80.9	0.4671	1.1360	4.741	62	0.2109	28	**322**
323	93.82	132	293.4	887.1	806.1	81.0	0.4684	1.1336	4.679	61	0.2137	28	**323**
324	95.14	134	294.5	886.3	805.3	81.0	0.4697	1.1312	4.618	60	0.2165	29	**324**
325	96.48	135	295.5	885.6	804.5	81.1	0.4710	1.1289	4.558	59	0.2194	29	**325**
326	97.83	137	296.5	884.9	803.7	81.2	0.4723	1.1265	4.499	57	0.2223	29	**326**
327	99.20	14	297.5	884.1	802.9	81.2	0.4736	1.1241	4.442	57	0.2252	29	**327**
328	100.6	14	298.6	883.4	802.1	81.3	0.4749	1.1218	4.385	56	0.2281	29	**328**
329	102.0	14	299.6	882.7	801.3	81.4	0.4762	1.1194	4.329	56	0.2310	30	**329**
330	103.4	14	300.6	882.0	800.6	81.4	0.4775	1.1171	4.273	54	0.2340	30	**330**
331	104.8	14	301.7	881.2	799.7	81.5	0.4789	1.1147	4.219	54	0.2370	30	**331**
332	106.2	15	302.7	880.5	798.9	81.6	0.4802	1.1124	4.165	52	0.2400	31	**332**
333	107.7	15	303.7	879.8	798.2	81.6	0.4815	1.1101	4.113	52	0.2431	31	**333**
334	109.2	15	304.8	879.0	797.3	81.7	0.4828	1.1078	4.061	51	0.2462	31	**334**
335	110.7	15	305.8	878.3	796.5	81.8	0.4841	1.1055	4.010	50	0.2493	32	**335**
336	112.2	15	306.8	877.6	795.8	81.8	0.4854	1.1032	3.960	50	0.2525	32	**336**
337	113.7	15	307.9	876.8	794.9	81.9	0.4867	1.1009	3.910	49	0.2557	33	**337**
338	115.2	16	308.9	876.1	794.1	82.0	0.4880	1.0986	3.861	48	0.2590	33	**338**
339	116.8	15	309.9	875.4	793.4	82.0	0.4892	1.0963	3.813	47	0.2623	33	**339**
340	118.3	16	310.9	874.7	792.6	82.1	0.4905	1.0940	3.766	47	0.2656	33	**340**
341	119.9	16	312.0	873.9	791.7	82.2	0.4918	1.0918	3.719	45	0.2689	33	**341**
342	121.5	16	313.0	873.3	791.1	82.2	0.4931	1.0896	3.674	45	0.2722	34	**342**
343	123.1	17	314.0	872.6	790.3	82.3	0.4944	1.0873	3.629	45	0.2756	34	**343**
344	124.8	16	315.1	871.8	789.4	82.4	0.4957	1.0850	3.584	44	0.2790	35	**344**
345	126.4	17	316.1	871.1	788.7	82.4	0.4970	1.0828	3.540	43	0.2825	35	**345**
346	128.1	17	317.1	870.4	787.9	82.5	0.4982	1.0806	3.497	42	0.2860	35	**346**
347	129.8	17	318.2	869.6	787.0	82.6	0.4995	1.0783	3.455	42	0.2895	35	**347**
348	131.5	17	319.2	868.9	786.3	82.6	0.5008	1.0761	3.413	42	0.2930	36	**348**
349	133.2	17	320.2	868.2	785.5	82.7	0.5021	1.0738	3.371	41	0.2966	36	**349**
350	134.9	18	321.3	867.4	784.7	82.7	0.5034	1.0716	3.330	40	0.3002	37	**350**

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351	136.7 $_{18}$	322.3	866.7	783.9	82.8	0.5047	1.0693	3.290 $_{39}$	0.3039 $_{37}$	351
352	138.5 $_{18}$	323.3	866.0	783.1	82.9	0.5059	1.0671	3.251 $_{39}$	0.3076 $_{37}$	352
353	140.3 $_{18}$	324.4	865.2	782.3	82.9	0.5072	1.0649	3.212 $_{38}$	0.3113 $_{38}$	353
354	142.1 $_{18}$	325.4	864.5	781.5	83.0	0.5085	1.0627	3.174 $_{38}$	0.3151 $_{38}$	354
355	143.9 $_{18}$	326.4	863.8	780.8	83.0	0.5097	1.0605	3.136 $_{38}$	0.3189 $_{39}$	355
356	145.7 $_{19}$	327.5	863.0	779.9	83.1	0.5110	1.0583	3.098 $_{37}$	0.3228 $_{39}$	356
357	147.6 $_{19}$	328.5	862.3	779.1	83.2	0.5123	1.0561	3.061 $_{36}$	0.3267 $_{39}$	357
358	149.5 $_{19}$	329.5	861.6	778.4	83.2	0.5135	1.0540	3.025 $_{36}$	0.3306 $_{39}$	358
359	151.4 $_{19}$	330.6	860.8	777.5	83.3	0.5148	1.0518	2.989 $_{35}$	0.3345 $_{40}$	359
360	153.3 $_{20}$	331.6	860.1	776.8	83.3	0.5161	1.0496	2.954 $_{35}$	0.3385 $_{41}$	360
361	155.3 $_{19}$	332.6	859.4	776.0	83.4	0.5173	1.0475	2.919 $_{34}$	0.3426 $_{41}$	361
362	157.2 $_{20}$	333.7	858.7	775.3	83.4	0.5186	1.0453	2.885 $_{34}$	0.3467 $_{41}$	362
363	159.2 $_{20}$	334.7	858.0	774.5	83.5	0.5199	1.0432	2.851 $_{33}$	0.3508 $_{41}$	363
364	161.2 $_{20}$	335.7	857.3	773.7	83.6	0.5211	1.0410	2.818 $_{33}$	0.3549 $_{42}$	364
365	163.2 $_{20}$	336.8	856.5	772.9	83.6	0.5224	1.0389	2.785 $_{32}$	0.3591 $_{42}$	365
366	165.2 $_{21}$	337.8	855.8	772.1	83.7	0.5236	1.0367	2.753 $_{32}$	0.3633 $_{42}$	366
367	167.3 $_{21}$	338.8	855.1	771.4	83.7	0.5249	1.0346	2.721 $_{31}$	0.3675 $_{43}$	367
368	169.4 $_{21}$	339.9	854.3	770.6	83.7	0.5261	1.0324	2.690 $_{31}$	0.3718 $_{43}$	368
369	171.5 $_{21}$	340.0	853.6	769.8	83.8	0.5274	1.0303	2.659 $_{31}$	0.3761 $_{44}$	369
370	173.6 $_{21}$	341.9	852.9	769.0	83.9	0.5286	1.0281	2.628 $_{30}$	0.3805 $_{44}$	370
371	175.7 $_{22}$	343.0	852.1	768.2	83.9	0.5299	1.0260	2.598 $_{30}$	0.3849 $_{45}$	371
372	177.9 $_{22}$	344.0	851.4	767.4	84.0	0.5311	1.0239	2.568 $_{29}$	0.3894 $_{45}$	372
373	180.1 $_{22}$	345.0	850.7	766.7	84.0	0.5324	1.0217	2.539 $_{29}$	0.3939 $_{45}$	373
374	182.3 $_{22}$	346.1	849.9	765.8	84.1	0.5336	1.0196	2.510 $_{29}$	0.3984 $_{46}$	374
375	184.5 $_{22}$	347.1	849.2	765.1	84.1	0.5349	1.0175	2.481 $_{28}$	0.4030 $_{47}$	375
376	186.7 $_{23}$	348.2	848.4	764.2	84.2	0.5361	1.0154	2.453 $_{28}$	0.4077 $_{47}$	376
377	189.0 $_{23}$	349.2	847.7	763.5	84.2	0.5374	1.0133	2.425 $_{27}$	0.4124 $_{47}$	377
378	191.3 $_{23}$	350.2	847.0	762.7	84.3	0.5386	1.0113	2.398 $_{27}$	0.4171 $_{47}$	378
379	193.6 $_{23}$	351.3	846.2	761.9	84.3	0.5398	1.0092	2.371 $_{27}$	0.4218 $_{48}$	379
380	195.9 $_{23}$	352.3	845.5	761.2	84.3	0.5411	1.0072	2.344 $_{26}$	0.4266 $_{48}$	380
381	198.2 $_{24}$	353.3	844.8	760.4	84.4	0.5423	1.0050	2.318 $_{26}$	0.4314 $_{48}$	381
382	200.6 $_{24}$	354.4	844.1	759.7	84.4	0.5435	1.0030	2.292 $_{25}$	0.4362 $_{49}$	382
383	203.0 $_{24}$	355.4	843.4	758.9	84.5	0.5448	1.0010	2.267 $_{25}$	0.4411 $_{49}$	383
384	205.4 $_{25}$	356.5	842.6	758.1	84.5	0.5460	0.9990	2.242 $_{25}$	0.4460 $_{51}$	384
385	207.9 $_{24}$	357.5	841.9	757.3	84.6	0.5473	0.9969	2.217 $_{25}$	0.4511 $_{51}$	385
386	210.3 $_{25}$	358.5	841.2	756.6	84.6	0.5485	0.9948	2.192 $_{24}$	0.4562 $_{52}$	386
387	212.8 $_{25}$	359.6	840.4	755.7	84.7	0.5497	0.9928	2.168 $_{24}$	0.4614 $_{52}$	387
388	215.3 $_{25}$	360.6	839.7	755.0	84.7	0.5509	0.9907	2.144 $_{24}$	0.4666 $_{52}$	388
389	217.8 $_{26}$	361.7	838.9	754.2	84.7	0.5522	0.9887	2.120 $_{23}$	0.4718 $_{52}$	389
390	220.4 $_{26}$	362.7	838.2	753.4	84.8	0.5534	0.9867	2.097 $_{23}$	0.4770 $_{53}$	390
391	223.0 $_{26}$	363.7	837.5	752.7	84.8	0.5546	0.9847	2.074 $_{23}$	0.4823 $_{54}$	391

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392	225.6$_{26}$	364.8	836.7	751.8	84.9	0.5558	0.9826	2.051$_{23}$	0.4877$_{54}$	**392**
393	228.2$_{26}$	365.8	836.0	751.1	84.9	0.5571	0.9806	2.028$_{22}$	0.4931$_{55}$	**393**
394	230.8$_{27}$	366.9	835.2	750.3	84.9	0.5583	0.9786	2.006$_{22}$	0.4986$_{56}$	**394**
395	233.5$_{27}$	367.9	834.5	749.5	85.0	0.5595	0.9766	1.984$_{22}$	0.5040$_{56}$	**395**
396	236.2$_{27}$	368.9	833.8	748.8	85.0	0.5607	0.9746	1.962$_{21}$	0.5096$_{56}$	**396**
397	238.9$_{27}$	370.0	833.0	748.0	85.0	0.5619	0.9726	1.941$_{21}$	0.5152$_{57}$	**397**
398	241.6$_{28}$	371.0	832.3	747.2	85.1	0.5632	0.9706	1.920$_{21}$	0.5209$_{57}$	**398**
399	244.4$_{28}$	372.0	831.6	746.5	85.1	0.5644	0.9686	1.899$_{21}$	0.5266$_{58}$	**399**
400	247.2$_{28}$	373.1	830.8	745.7	85.1	0.5656	0.9666	1.878$_{20}$	0.5324$_{58}$	**400**
401	250.0$_{29}$	374.1	830.1	745.0	85.1	0.5668	0.9647	1.858$_{20}$	0.5382$_{59}$	**401**
402	252.9$_{28}$	375.2	829.4	744.2	85.2	0.5680	0.9627	1.838$_{20}$	0.5441$_{59}$	**402**
403	255.7$_{29}$	376.2	828.7	743.5	85.2	0.5692	0.9608	1.818$_{20}$	0.5500$_{60}$	**403**
404	258.6$_{29}$	377.3	827.9	742.7	85.2	0.5704	0.9588	1.798$_{19}$	0.5560$_{61}$	**404**
405	261.5$_{30}$	378.3	827.2	741.9	85.3	0.5716	0.9569	1.779$_{19}$	0.5621$_{61}$	**405**
406	264.5$_{30}$	379.4	826.4	741.1	85.3	0.5728	0.9549	1.760$_{19}$	0.5682$_{62}$	**406**
407	267.5$_{30}$	380.4	825.7	740.4	85.3	0.5741	0.9529	1.741$_{19}$	0.5744$_{62}$	**407**
408	270.5$_{30}$	381.4	825.0	739.7	85.3	0.5753	0.9509	1.722$_{18}$	0.5806$_{63}$	**408**
409	273.5$_{30}$	382.5	824.2	738.8	85.4	0.5765	0.9490	1.704$_{18}$	0.5869$_{63}$	**409**
410	276.5$_{31}$	383.5	823.5	738.1	85.4	0.5777	0.9470	1.686$_{18}$	0.5931$_{64}$	**410**
411	279.6$_{31}$	384.6	822.7	737.3	85.4	0.5789	0.9451	1.668$_{18}$	0.5995$_{64}$	**411**
412	282.7$_{32}$	385.6	822.0	736.6	85.4	0.5801	0.9431	1.650$_{17}$	0.6059$_{65}$	**412**
413	285.9$_{31}$	386.7	821.2	735.8	85.4	0.5813	0.9412	1.633$_{17}$	0.6124$_{65}$	**413**
414	289.0$_{32}$	387.7	820.5	735.0	85.5	0.5825	0.9393	1.616$_{17}$	0.6189$_{66}$	**414**
415	292.2$_{32}$	388.7	819.8	734.3	85.5	0.5837	0.9374	1.599$_{17}$	0.6255$_{66}$	**415**
416	295.4$_{33}$	389.8	819.0	733.5	85.5	0.5849	0.9355	1.582$_{17}$	0.6321$_{67}$	**416**
417	298.7$_{32}$	390.8	818.3	732.8	85.5	0.5861	0.9336	1.565$_{17}$	0.6388$_{68}$	**417**
418	301.9$_{33}$	391.9	817.5	732.0	85.5	0.5873	0.9317	1.548$_{16}$	0.6456$_{69}$	**418**
419	305.2$_{34}$	392.9	816.8	731.3	85.5	0.5885	0.9298	1.532$_{16}$	0.6525$_{71}$	**419**
420	308.6$_{33}$	394.0	816.0	730.5	85.5	0.5896	0.9279	1.516$_{16}$	0.6596$_{71}$	**420**
421	311.9$_{34}$	395.0	815.3	729.8	85.5	0.5908	0.9260	1.500$_{16}$	0.6667$_{72}$	**421**
422	315.3$_{34}$	396.1	814.6	729.0	85.6	0.5920	0.9241	1.484$_{16}$	0.6739$_{73}$	**422**
433	318.7$_{35}$	397.1	813.9	728.3	85.6	0.5932	0.9222	1.468$_{16}$	0.6812$_{74}$	**423**
424	322.2$_{35}$	398.2	813.1	727.5	85.6	0.5944	0.9203	1.452$_{16}$	0.6886$_{75}$	**424**
425	325.7$_{35}$	399.2	812.4	726.8	85.6	0.5955	0.9184	1.436$_{15}$	0.6961$_{75}$	**425**
426	329.2$_{35}$	400.3	811.6	726.0	85.6	0.5967	0.9165	1.421$_{15}$	0.7036$_{76}$	**426**
427	332.7$_{36}$	401.3	810.9	725.3	85.6	0.5979	0.9147	1.406$_{14}$	0.7112$_{76}$	**427**
428	336.3	402.3	810.2	724.6	85.6	0.5991	0.9129	1.392	0.7188	**428**

TABLE II.

SATURATED STEAM.

ENGLISH UNITS.

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Diff.	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Diff.	Density. Weight, in Pounds, of One Cubic Foot. γ	Diff.	Pressure, Pounds per Square Inch. p
1	102.0	243	70.0	1043.1	981.1	62.0	0.1332	1.8574	335.3	161.3	0.00298	277	1
2	126.3	153	94.3	1026.2	961.9	64.3	0.1756	1.7519	174.0	55.4	0.00575	268	2
3	141.6	115	109.6	1015.5	949.6	65.9	0.2012	1.6895	118.6	28.0	0.00843	261	3
4	153.1	92	121.1	1007.5	940.6	66.9	0.2201	1.6447	90.60	17.22	0.01104	259	4
5	162.3	78	130.3	1001.2	933.4	67.8	0.2351	1.6100	73.38	11.56	0.01363	255	5
6	170.1	68	138.1	995.7	927.1	68.6	0.2478	1.5815	61.82	8.32	0.01618	251	6
7	176.9	60	144.9	991.0	921.8	69.2	0.2584	1.5571	53.50	6.31	0.01869	250	7
8	182.9	54	151.0	986.7	916.9	69.8	0.2679	1.5359	47.19	4.96	0.02119	249	8
9	188.3	49	156.4	983.0	912.8	70.2	0.2763	1.5174	42.23	3.98	0.02368	246	9
10	193.2	46	161.4	979.5	908.8	70.7	0.2839	1.5006	38.25	3.29	0.02614	246	10
11	197.8	42	166.0	976.3	905.2	71.1	0.2909	1.4853	34.96	2.75	0.02860	245	11
12	202.0	39	170.2	973.4	901.9	71.5	0.2973	1.4714	32.21	2.32	0.03105	243	12
13	205.9	37	174.1	970.6	898.8	71.8	0.3032	1.4586	29.89	2.03	0.03348	242	13
14	209.6	34	177.8	968.0	895.9	72.1	0.3088	1.4467	27.86	1.66	0.03590	227	14
15	213.0	33	181.3	965.6	893.0	72.6	0.3141	1.4358	26.20	1.55	0.03817	240	15
16	216.3	31	184.6	963.3	890.4	72.9	0.3190	1.4254	24.65	1.38	0.04057	240	16
17	219.4	30	187.8	961.1	888.0	73.1	0.3236	1.4155	23.27	1.22	0.04297	238	17
18	222.4	28	190.8	959.0	885.7	73.3	0.3280	1.4062	22.05	1.10	0.04535	238	18
19	225.2	27	193.7	957.0	883.5	73.5	0.3322	1.3975	20.95	1.00	0.04773	238	19
20	227.9	27	196.5	955.0	881.3	73.7	0.3362	1.3892	19.95	90	0.05011	237	20
21	230.6	25	199.1	953.2	879.3	73.9	0.3400	1.3813	19.05	81	0.05248	236	21
22	233.1	24	201.6	951.4	877.3	74.1	0.3437	1.3737	18.24	75	0.05484	235	22
23	235.5	23	204.1	949.6	875.3	74.3	0.3472	1.3665	17.49	70	0.05719	235	23
24	237.8	22	206.4	948.0	873.5	74.5	0.3506	1.3596	16.79	63	0.05954	234	24
25	240.0	22	208.7	946.4	871.8	74 6	0.3539	1.3529	16.16	58	0.06188	232	25
26	242.2	21	210.9	944.9	870.1	74.8	0.3571	1.3465	15.58	55	0.06420	233	26
27	244.3	21	213.1	943.4	868.4	75.0	0.3601	1.3403	15.03	51	0.06653	234	27
28	246.4	19	215.1	942.0	866.9	75.1	0.3630	1.3343	14.52	46	0.06887	230	28
29	248.3	20	217.1	940.6	865.3	75.3	0.3659	1.3286	14.06	44	0.07117	230	29
30	250.3	19	219.1	939.2	863.8	75.4	0.3687	1.3232	13.62	41	0.07347	229	30
31	252.2	18	221.0	937.9	862.3	75.6	0.3714	1.3179	13.21	40	0.07576	230	31
32	254.0	18	222.8	936.6	860 9	75.7	0.3739	1.3127	12.81	37	0.07806	231	32

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Density. Weight, in Pounds, of One Cubic Foot. γ
33	255.8$_{17}$	224.6	935.3	859.4	75.9	0.3764	1.3075	12.44$_{34}$	0.08037$_{231}$
34	257.5$_{17}$	226.4	934.0	858.0	76.0	0.3790	1.3026	12.09$_{32}$	0.08268$_{228}$
35	259.2$_{17}$	228.1	932.9	856.7	76.1	0.3814	1.2979	11.77$_{30}$	0.08496$_{226}$
36	260.9$_{16}$	229.8	931.7	855.4	76.3	0.3837	1.2932	11.47$_{29}$	0.08722$_{226}$
37	262.5$_{16}$	231.5	930.5	854.1	76.4	0.3859	1.2887	11.18$_{28}$	0.08948$_{226}$
38	264.1$_{15}$	233.1	929.4	852.9	76.5	0.3881	1.2844	10.90$_{26}$	0.09174$_{224}$
39	265.6$_{15}$	234.6	928.3	851.7	76.6	0.3903	1.2801	10.64$_{25}$	0.09398$_{237}$
40	267.1$_{15}$	236.2	927.2	850.5	76.8	0.3925	1.2759	10.39$_{24}$	0.09625$_{227}$
41	268.6$_{15}$	237.7	926.2	849.3	76.9	0.3946	1.2718	10.15$_{22}$	0.09852$_{22}$
42	270.1$_{14}$	239.2	925.1	848.1	77.0	0.3967	1.2679	9.925$_{216}$	0.1007$_{23}$
43	271.5$_{14}$	240.7	924.1	847.0	77.1	0.3987	1.2641	9.709$_{207}$	0.1030$_{22}$
44	272.9$_{14}$	242.1	923.1	845.9	77.2	0.4006	1.2604	9.502$_{198}$	0.1052$_{23}$
45	274.3$_{14}$	243.5	922.1	844.8	77.3	0.4025	1.2566	9.304$_{190}$	0.1075$_{22}$
46	275.7$_{13}$	244.9	921.1	843.7	77.4	0.4044	1.2529	9.114$_{183}$	0.1097$_{23}$
47	277.0$_{13}$	246.3	920.1	842.6	77.5	0.4062	1.2493	8.931$_{175}$	0.1120$_{22}$
48	278.3$_{13}$	247.6	919.2	841.6	77.6	0.4080	1.2458	8.756$_{168}$	0.1142$_{22}$
49	279.6$_{12}$	248.9	918.3	840.6	77.7	0.4098	1.2424	8.588$_{159}$	0.1164$_{22}$
50	280.8$_{13}$	250.2	917.4	839.6	77.8	0.4115	1.2391	8.429$_{156}$	0.1186$_{23}$
51	282.1$_{12}$	251.5	916.5	838.6	77.9	0.4133	1.2359	8.273$_{150}$	0.1209$_{22}$
52	283.3$_{12}$	252.7	915.7	837.7	78.0	0.4150	1.2327	8.123$_{142}$	0.1231$_{22}$
53	284.5$_{12}$	253.9	914.8	836.7	78.1	0.4167	1.2295	7.981$_{139}$	0.1253$_{22}$
54	285.7$_{12}$	255.2	913.9	835.7	78.2	0.4183	1.2263	7.842$_{133}$	0.1275$_{22}$
55	286.9$_{12}$	256.4	913.0	834.7	78.3	0.4199	1.2232	7.709$_{129}$	0.1297$_{22}$
56	288.1$_{11}$	257.6	912.2	833.8	78.4	0.4215	1.2201	7.580$_{126}$	0.1319$_{23}$
57	289.2$_{11}$	258.8	911.3	832.9	78.5	0.4231	1.2172	7.454$_{120}$	0.1342$_{22}$
58	290.3$_{11}$	259.9	910.6	832.1	78.5	0.4246	1.2144	7.334$_{115}$	0.1364$_{21}$
59	291.4$_{11}$	261.0	909.8	831.2	78.6	0.4261	1.2116	7.219$_{112}$	0.1385$_{22}$
60	292.5$_{11}$	262.1	909.1	830.3	78.7	0.4276	1.2088	7.107$_{110}$	0.1407$_{22}$
61	293.6$_{11}$	263.2	908.3	829.4	78.8	0.4291	1.2060	6.997$_{105}$	0.1429$_{22}$
62	294.7$_{10}$	264.3	907.5	828.6	78.9	0.4305	1.2033	6.892$_{102}$	0.1451$_{22}$
63	295.7$_{10}$	265.4	906.7	827.8	79.0	0.4319	1.2006	6.790$_{100}$	0.1473$_{22}$
64	296.7$_{11}$	266.5	905.9	827.0	79.0	0.4333	1.1980	6.690$_{98}$	0.1495$_{22}$
65	297.8$_{10}$	267.5	905.2	826.2	79.1	0.4347	1.1953	6.592$_{93}$	0.1517$_{22}$
66	298.8$_{10}$	268.6	904.4	825.3	79.2	0.4361	1.1927	6.499$_{90}$	0.1539$_{21}$
67	299.8$_{10}$	269.6	903.7	824.5	79.3	0.4375	1.1902	6.409$_{87}$	0.1560$_{22}$
68	300.8$_{9}$	270.6	903.0	823.7	79.3	0.4388	1.1877	6.322$_{86}$	0.1582$_{22}$
69	301.7$_{10}$	271.6	902.3	823.0	79.4	0.4401	1.1853	6.236$_{85}$	0.1604$_{22}$
70	302.7$_{10}$	272.6	901.7	822.3	79.5	0.4414	1.1829	6.151$_{81}$	0.1626$_{21}$
71	303.7$_{9}$	273.6	901.0	821.5	79.6	0.4427	1.1806	6.070$_{79}$	0.1647$_{22}$
72	304.6$_{9}$	274.5	900.4	820.8	79.6	0.4440	1.1783	5.991$_{76}$	0.1669$_{22}$
73	305.5$_{10}$	275.5	899.7	820.0	79.7	0.4452	1.1761	5.915$_{74}$	0.1691$_{21}$

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	DENSI[TY] Weight, in Pounds, of One Cubi[c Foot]. γ
74	306.5_{9}	276.5	898.9	819.1	79.8	0.4464	1.1736	5.841_{72}	0.171
75	307.4_{9}	277.4	898.3	818.6	79.8	0.4477	1.1714	5.769_{72}	0.173
76	308.3_{9}	278.3	897.7	817.9	79.9	0.4489	1.1691	5.697_{70}	0.175
77	309.2_{9}	279.2	897.0	817.0	80.0	0.4501	1.1669	5.627_{67}	0.177
78	310.1_{8}	280.1	896.4	816.4	80.0	0.4513	1.1646	5.560_{66}	0.179
79	310.9_{9}	281.0	895.8	815.7	80.1	0.4525	1.1626	5.494_{63}	0.182
80	311.8_{9}	281.9	895.1	815.0	80.2	0.4536	1.1605	5.431_{63}	0.184
81	312.7_{8}	282.8	894.5	814.3	80.2	0.4548	1.1583	5.368_{61}	0.186
82	313.5_{9}	283.7	893.9	813.6	80.3	0.4559	1.1563	5.307_{61}	0.188
83	314.4_{8}	284.6	893.2	812.9	80.4	0.4570	1.1541	5.246_{58}	0.190
84	315.2_{8}	285.4	892.7	812.3	80.4	0.4581	1.1522	5.188_{57}	0.192
85	316.0_{8}	286.2	892.1	811.6	80.5	0.4592	1.1503	5.131_{56}	0.194
86	316.8_{8}	287.1	891.5	811.0	80.5	0.4603	1.1484	5.075_{55}	0.197
87	317.6_{8}	287.9	890.9	810.3	80.6	0.4614	1.1465	5.020_{53}	0.199
88	318.4_{8}	288.8	890.3	809.7	80.6	0.4624	1.1445	4.967_{52}	0.201
89	319.2_{8}	289.5	889.8	809.0	80.7	0.4634	1.1426	4.915_{51}	0.203
90	320.0_{8}	290.3	889.3	808.4	80.8	0.4644	1.1407	4.864_{50}	0.205
91	320.8_{8}	291.1	888.7	807.8	80.8	0.4655	1.1388	4.814_{48}	0.207
92	321.6_{8}	291.9	888.1	807.2	80.9	0.4665	1.1369	4.766_{48}	0.209
93	322.4_{7}	292.7	887.6	806.6	80.9	0.4675	1.1350	4.718_{47}	0.211
94	323.1_{8}	293.5	887.0	806.0	81.0	0.4685	1.1333	4.671_{46}	0.21
95	323.9_{7}	294.3	886.4	805.4	81.0	0.4695	1.1314	4.625_{45}	0.21
96	324.6_{8}	295.1	885.9	804.8	81.1	0.4704	1.1298	4.580_{44}	0.21
97	325.4_{7}	295.9	885.3	804.2	81.1	0.4714	1.1279	4.536_{44}	0.22
98	326.1_{8}	296.6	884.8	803.6	81.2	0.4723	1.1262	4.492_{42}	0.22
99	326.9_{7}	297.3	884.3	803.0	81.2	0.4733	1.1243	4.450_{41}	0.22
100	327.6_{7}	298.1	883.8	802.4	81.3	0.4743	1.1227	4.409_{41}	0.22
101	328.3_{7}	298.8	883.3	801.9	81.3	0.4753	1.1211	4.368_{40}	0.22
102	329.0_{7}	299.6	882.7	801.3	81.4	0.4763	1.1194	4.328_{40}	0.23
103	329.7_{7}	300.3	882.2	800.8	81.4	0.4773	1.1178	4.288_{38}	0.23
104	330.4_{7}	301.1	881.6	800.2	81.5	0.4782	1.1161	4.250_{38}	0.23
105	331.1_{7}	301.8	881.1	799.6	81.5	0.4791	1.1145	4.212_{37}	0.23
106	331.8_{7}	302.5	880.6	799.1	81.6	0.4800	1.1129	4.175_{37}	0.23
107	332.5_{7}	303.2	880.2	798.6	81.6	0.4809	1.1112	4.138_{36}	0.24
108	333.2_{7}	303.9	879.7	798.0	81.7	0.4818	1.1096	4.102_{35}	0.24
109	333.9_{7}	304.6	879.2	797.5	81.7	0.4827	1.1080	4.067_{35}	0.24
110	334.6_{6}	305.3	878.7	796.9	81.8	0.4836	1.1064	4.032_{34}	0.24
111	335.2_{7}	306.0	878.2	796.4	81.8	0.4844	1.1050	3.998_{33}	0.25
112	335.9_{7}	306.7	877.7	795.9	81.8	0.4852	1.1034	3.965_{33}	0.25
113	336.6_{6}	307.4	877.2	795.3	81.9	0.4861	1.1018	3.932_{32}	0.2
114	337.2_{7}	308.1	876.7	794.8	81.9	0.4869	1.1004	3.900_{32}	0.2

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Density. Weight, in Pounds, of One Cubic Foot. γ	Pressure, Pounds per Square Inch. p
115	337.9_{6}	308.8	876.2	794.3	82.0	0.4878	1.0988	3.868_{31}	0.2585_{21}	**115**
116	338.5_{6}	309.5	875.7	793.8	82.0	0.4886	1.0974	3.837_{30}	0.2606_{21}	**116**
117	339.1_{7}	310.1	875.3	793.3	82.0	0.4894	1.0961	3.807_{31}	0.2627_{22}	**117**
118	339.8_{6}	310.8	874.8	792.8	82.1	0.4902	1.0946	3.776_{30}	0.2649_{21}	**118**
119	340.4_{6}	311.4	874.4	792.3	82.1	0.4911	1.0931	3.746_{29}	0.2670_{21}	**119**
120	341.0_{7}	312.0	874.0	791.8	82.2	0.4919	1.0918	3.717_{28}	0.2691_{20}	**120**
121	341.7_{6}	312.7	873.5	791.3	82.2	0.4927	1.0903	3.689_{28}	0.2711_{21}	**121**
122	342.3_{6}	313.3	873.0	790.7	82.3	0.4935	1.0889	3.661_{28}	0.2732_{21}	**122**
123	342.9_{6}	313.9	872.6	790.2	82.3	0.4943	1.0875	3.633_{28}	0.2753_{21}	**123**
124	343.5_{6}	314.5	872.2	789.8	82.3	0.4951	1.0861	3.605_{27}	0.2774_{21}	**124**
125	344.1_{6}	315.1	871.8	789.3	82.4	0.4959	1.0848	3.578_{26}	0.2795_{20}	**125**
126	344.7_{6}	315.8	871.3	788.8	82.4	0.4967	1.0835	3.552_{26}	0.2815_{21}	**126**
127	345.3_{6}	316.4	870.9	788.3	82.5	0.4975	1.0821	3.526_{26}	0.2836_{21}	**127**
128	345.9_{6}	317.0	870.4	787.9	82.5	0.4981	1.0808	3.500_{25}	0.2857_{21}	**128**
129	346.5_{6}	317.6	870.0	787.5	82.5	0.4989	1.0794	3.475_{25}	0.2878_{21}	**129**
130	347.1_{6}	318.3	869.5	787.0	82.6	0.4997	1.0781	3.450_{25}	0.2899_{21}	**130**
131	347.7_{6}	318.9	869.1	786.5	82.6	0.5004	1.0768	3.425_{24}	0.2920_{21}	**131**
132	348.3_{6}	319.5	868.7	786.1	82.6	0.5012	1.0754	3.401_{24}	0.2941_{21}	**132**
133	348.9_{6}	320.1	868.3	785.6	82.7	0.5019	1.0740	3.377_{24}	0.2962_{20}	**133**
134	349.5_{5}	320.7	867.8	785.1	82.7	0.5027	1.0727	3.353_{24}	0.2982_{21}	**134**
135	350.0_{6}	321.3	867.4	784.7	82.7	0.5034	1.0715	3.329_{23}	0.3003_{21}	**135**
136	350.6_{6}	321.9	867.0	784.2	82.8	0.5042	1.0702	3.306_{23}	0.3024_{21}	**136**
137	351.2_{5}	322.4	866.6	783.8	82.8	0.5049	1.0689	3.283_{22}	0.3045_{21}	**137**
138	351.7_{6}	323.0	866.2	783.4	82.8	0.5055	1.0677	3.261_{21}	0.3066_{20}	**138**
139	352.3_{6}	323.6	865.8	782.9	82.9	0.5062	1.0664	3.240_{22}	0.3086_{21}	**139**
140	352.9_{5}	324.2	865.3	782.4	82.9	0.5070	1.0651	3.218_{21}	0.3107_{21}	**140**
141	353.4_{6}	324.8	864.9	781.9	82.9	0.5077	1.0640	3.197_{21}	0.3128_{21}	**141**
142	354.0_{5}	325.4	864.5	781.5	83.0	0.5085	1.0627	3.176_{21}	0.3149_{21}	**142**
143	354.5_{6}	326.0	864.1	781.1	83.0	0.5092	1.0616	3.155_{21}	0.3170_{21}	**143**
144	355.1_{5}	326.5	863.7	780.7	83.0	0.5098	1.0603	3.134_{21}	0.3191_{21}	**144**
145	355.6_{5}	327.0	863.4	780.3	83.1	0.5105	1.0592	3.113_{20}	0.3212_{21}	**145**
146	356.1_{6}	327.6	863.0	779.9	83.1	0.5112	1.0581	3.093_{19}	0.3233_{20}	**146**
147	356.7_{5}	328.1	862.6	779.5	83.1	0.5119	1.0568	3.074_{20}	0.3253_{21}	**147**
148	357.2_{5}	328.7	862.2	779.0	83.2	0.5125	1.0557	3.054_{19}	0.3274_{20}	**148**
149	357.7_{6}	329.2	861.8	778.6	83.2	0.5131	1.0546	3.035_{19}	0.3294_{21}	**149**
150	358.3_{5}	329.8	861.4	778.2	83.2	0.5138	1.0534	3.016_{19}	0.3315_{21}	**150**
151	358.8_{5}	330.4	861.0	777.8	83.3	0.5145	1.0522	2.997_{19}	0.3336_{21}	**151**
152	359.3_{5}	330.9	860.6	777.4	83.3	0.5152	1.0511	2.978_{18}	0.3357_{21}	**152**
153	359.8_{5}	331.4	860.3	777.0	83.3	0.5159	1.0500	2.960_{18}	0.3378_{21}	**153**
154	360.3_{6}	331.9	859.9	776.6	83.4	0.5166	1.0489	2.942_{18}	0.3399_{21}	**154**
155	360.9_{5}	332.4	859.6	776.2	83.4	0.5172	1.0477	2.924_{18}	0.3420_{21}	**155**

Temperature, Degrees Fahr.		Heat of the Liquid.	Heat of Vaporization.	Heat Equivalent of Internal Work.	Heat Equivalent of External Work.	Entropy of the Liquid.	Entropy of Vaporization.	Specific Volume.		Density. Weight, in Pounds, of One Cubic Foot.		Pressure, Pounds per Square Inch.
t		q	r	ρ	Apu	θ	$\frac{r}{T}$	s		γ		p
361.4	5	333.0	859.2	775.8	83.4	0.5178	1.0466	2.906	17	0.3441	20	156
361.9	5	333.5	858.8	775.3	83.4	0.5184	1.0456	2.889	17	0.3461	21	157
362.4	5	334.1	858.4	774.9	83.5	0.5191	1.0445	2.872	17	0.3482	21	158
362.9	5	334.6	858.1	774.6	83.5	0.5198	1.0434	2.855	17	0.3503	21	159
363.4	5	335.1	857.7	774.2	83.5	0.5204	1.0423	2.838	17	0.3524	21	160
363.9	5	335.6	857.4	773.9	83.5	0.5210	1.0412	2.821	17	0.3545	21	161
364.4	5	336.1	857.0	773.4	83.6	0.5216	1.0402	2.804	16	0.3566	21	162
364.9	5	336.7	856.6	773.0	83.6	0.5222	1.0391	2.788	16	0.3587	21	163
365.4	5	337.2	856.2	772.6	83.6	0.5229	1.0381	2.772	16	0.3608	21	164
365.9	5	337.7	855.9	772.2	83.7	0.5235	1.0370	2.756	15	0.3629	20	165
366.4	5	338.2	855.5	771.8	83.7	0.5241	1.0359	2.741	15	0.3649	20	166
366.9	4	338.7	855.2	771.5	83.7	0.5247	1.0348	2.726	15	0.3669	20	167
367.3	5	339.2	854.8	771.1	83.7	0.5253	1.0338	2.711	15	0.3689	20	168
367.8	5	339.7	854.5	770.7	83.8	0.5259	1.0328	2.696	15	0.3709	21	169
368.3	5	340.2	854.1	770.3	83.8	0.5265	1.0318	2.681	15	0.3730	21	170
368.8	4	340.7	853.7	770.0	83.8	0.5271	1.0308	2.666	14	0.3751	20	171
369.2	5	341.2	853.4	769.6	83.8	0.5277	1.0298	2.652	15	0.3771	21	172
369.7	5	341.6	853.1	769.2	83.9	0.5283	1.0288	2.637	14	0.3792	21	173
370.2	5	342.1	852.7	768.8	83.9	0.5289	1.0277	2.623	15	0.3813	21	174
370.7	4	342.6	852.4	768.4	83.9	0.5295	1.0266	2.608	14	0.3834	21	175
371.1	5	343.1	852.0	768.0	83.9	0.5301	1.0257	2.594	14	0.3855	21	176
371.6	5	343.6	851.7	767.7	83.9	0.5306	1.0247	2.580	14	0.3876	21	177
372.1	4	344.0	851.4	767.4	84.0	0.5312	1.0237	2.566	13	0.3897	21	178
372.5	5	344.5	851.1	767.1	84.0	0.5317	1.0227	2.553	13	0.3918	20	179
373.0	4	344.9	850.8	766.8	84.0	0.5323	1.0217	2.540	13	0.3938	20	180
373.4	5	345.4	850.5	766.4	84.0	0.5329	1.0207	2.527	14	0.3958	21	181
373.9	4	345.9	850.1	766.0	84.1	0.5335	1.0197	2.513	13	0.3979	21	182
374.3	5	346.4	849.7	765.6	84.1	0.5340	1.0188	2.500	13	0.4000	21	183
374.8	4	346.9	849.3	765.2	84.1	0.5346	1.0179	2.487	12	0.4021	20	184
375.2	5	347.4	849.0	764.9	84.1	0.5351	1.0170	2.475	13	0.4041	21	185
375.7	4	347.8	848.7	764.6	84.1	0.5357	1.0161	2.462	12	0.4062	20	186
376.1	5	348.3	848.3	764.2	84.2	0.5363	1.0152	2.450	13	0.4082	21	187
376.6	4	348.8	848.0	763.8	84.2	0.5368	1.0142	2.437	12	0.4103	21	188
377.0	4	349.2	847.7	763.5	84.2	0.5374	1.0133	2.425	12	0.4124	21	189
377.4	5	349.7	847.4	763.2	84.2	0.5379	1.0124	2.413	12	0.4145	21	190
377.9	4	350.1	847.1	762.8	84.3	0.5385	1.0115	2.401	11	0.4166	20	191
378.3	5	350.6	846.7	762.4	84.3	0.5390	1.0106	2.390	12	0.4186	20	192
378.8	4	351.0	846.4	762.1	84.3	0.5395	1.0097	2.378	12	0.4206	21	193
379.2	4	351.5	846.1	761.8	84.3	0.5400	1.0088	2.366	11	0.4227	21	194
379.6	4	351.9	845.8	761.5	84.3	0.5406	1.0080	2.355	12	0.4248	21	195
380.0	5	352.3	845.5	761.2	84.3	0.5412	1.0071	2.343	12	0.4269	20	196

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Density. Weight, in Pounds, of One Cubic Foot. γ	Pressure, Pounds per Square Inch. p
197	380.5	352.8	845.2	760*.8	84.4	0.5417	1.0062	2.331_{12}	0.4289_{20}	**197**
198	380.9	353.2	844.9	760.5	84.4	0.5422	1.0053	2.319_{10}	0.4309_{20}	**198**
199	381.3	353.6	844.6	760.2	84.4	0.5427	1.0044	2.309_{10}	0.4329_{20}	**199**
200	381.7	354.1	844.3	759.9	84.4	0.5432	1.0035	2.299_{10}	0.4349_{20}	**200**
201	382.2	354.5	844.0	759.5	84.5	0.5437	1.0026	2.289_{10}	0.4369_{20}	**201**
202	382.6	354.9	843.7	759.2	84.5	0.5443	1.0018	2.279_{11}	0.4389_{21}	**202**
203	383.0	355.4	843.4	758.9	84.5	0.5448	1.0010	2.268_{11}	0.4410_{21}	**203**
204	383.4	355.8	843.1	758.6	84.5	0.5453	1.0002	2.257_{11}	0.4431_{20}	**204**
205	383.8	356.3	842.7	758.2	84.5	0.5458	.9994	2.246_{10}	0.4451_{21}	**205**
206	384.2	356.8	842.4	757.8	84.6	0.5463	.9986	2.236_{10}	0.4472_{21}	**206**
207	384.6	357.2	842.1	757.5	84.6	0.5469	.9977	2.226_{10}	0.4493_{21}	**207**
208	385.1	357.6	841.8	757.2	84.6	0.5474	.9968	2.216_{11}	0.4514_{20}	**208**
209	385.5	358.0	841.5	756.9	84.6	0.5479	.9959	2.205_{10}	0.4534_{21}	**209**
210	385.9	358.4	841.2	756.6	84.6	0.5484	.9950	2.195_{10}	0.4555_{21}	**210**
211	386.3	358.8	841.0	756.3	84.6	0.5489	.9942	2.185_{9}	0.4576_{21}	**211**
212	386.7	359.2	840.7	756.0	84.7	0.5493	.9934	2.176_{9}	0.4597_{20}	**212**
213	387.1	359.6	840.4	755.7	84.7	0.5497	.9926	2.167_{10}	0.4617_{21}	**213**
214	387.5	360.1	840.0	755.3	84.7	0.5502	.9918	2.157_{10}	0.4638_{21}	**214**
215	387.9	360.5	839.7	755.0	84.7	0.5507	.9909	2.147_{10}	0.4659_{21}	**215**
216	388.3	360.9	839.5	754.8	84.7	0.5512	.9901	2.137_{9}	0.4680_{21}	**216**
217	388.7	361.3	839.2	754.5	84.7	0.5518	.9893	2.128_{9}	0.4701_{20}	**217**
218	389.1	361.7	838.9	754.2	84.7	0.5523	.9885	2.119_{9}	0.4721_{20}	**218**
219	389.5	362.1	838.6	753.8	84.8	0.5528	.9878	2.110_{9}	0.4741_{21}	**219**
220	389.8	362.5	838.3	753.5	84.8	0.5532	.9871	2.101_{9}	0.4762_{20}	**220**
221	390.2	362.9	838.0	753.2	84.8	0.5536	.9863	2.092_{9}	0.4782_{21}	**221**
222	390.6	363.3	837.8	753.0	84.8	0.5541	.9855	2.083_{9}	0.4803_{21}	**222**
223	391.0	363.7	837.5	752.7	84.8	0.5546	.9847	2.074_{9}	0.4824_{21}	**223**
224	391.4	364.1	837.2	752.4	84.8	0.5551	.9839	2.065_{9}	0.4845_{21}	**224**
225	391.8	364.5	836.9	752.0	84.8	0.5556	.9830	2.056_{9}	0.4866_{20}	**225**
226	392.2	364.9	836.7	751.7	84.9	0.5560	.9822	2.047_{9}	0.4886_{21}	**226**
227	392.6	365.3	836.4	751.5	84.9	0.5565	.9814	2.038_{8}	0.4907_{21}	**227**
228	392.9	365.7	836.1	751.2	84.9	0.5570	.9807	2.030_{9}	0.4928_{21}	**228**
229	393.3	366.1	835.8	750.9	84.9	0.5574	.9800	2.021_{8}	0.4949_{20}	**229**
230	393.7	366.6	835.4	750.5	84.9	0.5579	.9792	2.013_{8}	0.4969_{21}	**230**
231	394.1	367.0	835.1	750.2	84.9	0.5584	.9784	2.005_{9}	0.4990_{21}	**231**
232	394.5	367.4	834.8	749.9	84.9	0.5588	.9776	1.996_{8}	0.5011_{20}	**232**
233	394.8	367.8	834.6	749.6	85.0	0.5593	.9769	1.988_{8}	0.5031_{20}	**233**
234	395.2	368.1	834.4	749.4	85.0	0.5597	.9762	1.980_{8}	0.5051_{20}	**234**
235	395.6	368.4	834.2	749.2	85.0	0.5602	.9755	1.972_{8}	0.5071_{21}	**235**
236	395.9	368.8	833.9	748.9	85.0	0.5606	.9748	1.964_{8}	0.5092_{20}	**236**
237	396.3	369.2	833.6	748.6	85.0	0.5611	.9740	1.956_{8}	0.5112_{21}	**237**

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	Density. Weight, in Pounds, of One Cubic Foot. γ	Pressure, Pounds per Square Inch. p
238	396.7	369.7	833.3	748.3	85.0	0.5615	.9732	1.948_{8}	0.5133_{21}	**238**
239	397.0	370.1	833.0	748.0	85.0	0.5620	.9725	1.940_{8}	0.5154_{21}	**239**
240	397.4	370.4	832.7	747.7	85.0	0.5624	.9718	1.932_{7}	0.5175_{20}	**240**
241	397.8	370.7	832.6	747.5	85.1	0.5629	.9711	1.925_{8}	0.5195_{20}	**241**
242	398.1	371.1	831.3	747.2	85.1	0.5633	.9604	1.917_{7}	0.5215_{21}	**242**
243	398.5	371.5	832.0	746.9	85.1	0.5638	.9696	1.910_{8}	0.5236_{21}	**243**
244	398.9	371.9	831.7	746.6	85.1	0.5642	.9688	1.902_{7}	0.5257_{21}	**244**
245	399.2	372.2	831.5	746.4	85.1	0.5646	.9681	1.895_{8}	0.5278_{21}	**245**
246	399.6	372.6	831.2	746.1	85.1	0.5651	.9674	1.887_{8}	0.5299_{21}	**246**
247	399.9	373.0	830.9	745.8	85.1	0.5655	.9668	1.879_{7}	0.5320_{21}	**247**
248	400.3	373.4	830.6	745.5	85.1	0.5659	.9661	1.872_{7}	0.5341_{20}	**248**
249	400.6	373.7	830.4	745.3	85.1	0.5664	.9654	1.865_{7}	0.5361_{20}	**249**
250	401.0	374.1	830.1	745.0	85.1	0.5668	.9647	1.858_{7}	0.5381_{20}	**250**
251	401.3	374.5	829.9	744.7	85.2	0.5672	.9641	1.851_{7}	0.5401_{20}	**251**
252	401.7	374.8	829.7	744.5	85.2	0.5676	.9634	1.844_{7}	0.5421_{21}	**252**
253	402.0	375.2	829.4	744.2	85.2	0.5681	.9627	1.837_{7}	0.5442_{21}	**253**
254	402.4	375.6	829.1	743.9	85.2	0.5685	.9620	1.830_{7}	0.5463_{21}	**254**
255	402.7	375.9	828.9	743.7	85.2	0.5689	.9613	1.823_{7}	0.5484_{21}	**255**
256	403.1	376.3	828.6	743.4	85.2	0.5693	.9606	1.816_{7}	0.5505_{21}	**256**
257	403.4	376.7	828.3	743.1	85.2	0.5698	.9599	1.809_{7}	0.5526_{21}	**257**
258	403.8	377.0	828.1	742.9	85.2	0.5702	.9592	1.802_{6}	0.5547_{21}	**258**
259	404.1	377.4	827.8	742.6	85.2	0.5706	.9585	1.796_{7}	0.5568_{20}	**259**
260	404.5	377.8	827.5	742.3	85.2	0.5710	.9578	1.789_{6}	0.5588_{21}	**260**
261	404.8	378.1	827.3	742.0	85.3	0.5714	.9572	1.783_{7}	0.5609_{21}	**261**
262	405.2	378.5	827.0	741.7	85.3	0.5718	.9565	1.777_{7}	0.5630_{21}	**262**
263	405.5	378.8	826.8	741.5	85.3	0.5722	.9559	1.770_{7}	0.5651_{21}	**263**
264	405.8	379.2	826.5	741.2	85.3	0.5726	.9552	1.763_{6}	0.5672_{21}	**264**
265	406.2	379.6	826.2	740.9	85.3	0.5730	.9545	1.757_{7}	0.5693_{21}	**265**
266	406.5	379.9	826.0	740.7	85.3	0.5734	.9539	1.750_{6}	0.5714_{20}	**266**
267	406.8	380.2	825.8	740.5	85.3	0.5738	.9532	1.744_{6}	0.5734_{21}	**267**
268	407.2	380.6	825.5	740.2	85.3	0.5742	.9525	1.738_{6}	0.5755_{21}	**268**
269	407.5	380.9	825.3	740.0	85.3	0.5746	.9519	1.732_{6}	0.5776_{21}	**269**
270	407.9	381.3	825.0	739.7	85.3	0.5750	.9512	1.726_{6}	0.5797_{20}	**270**
271	408.2	381.6	824.8	739.5	85.3	0.5754	.9505	1.720_{7}	0.5817_{21}	**271**
272	408.5	382.0	824.5	739.2	85.3	0.5759	.9499	1.713_{6}	0.5838_{21}	**272**
273	408.8	382.3	824.3	738.9	85.4	0.5763	.9493	1.707	0.5859_{21}	**273**
274	409.2	382.7	824.0	738.6	85.4	0.5767	.9486	1.701_{6}	0.5880_{21}	**274**
275	409.5	383.0	823.8	738.4	85.4	0.5771	.9480	1.695_{6}	0.5901_{21}	**275**
276	409.8	383.4	823.5	738.1	85.4	0.5775	.9474	1.689_{6}	0.5922_{21}	**276**
277	410.2	383.7	823.3	737.9	85.4	0.5779	.9467	1.683_{6}	0.5943_{21}	**277**
278	410.5	384.0	823.1	737.7	85.4	0.5782	.9460	1.677_{5}	0.5964_{21}	**278**

Pressure, Pounds p Square Inch. p	Temperatur Degrees Fahr. t	Heat of th Liquid. q	Heat of Va orization r	Heat Equiv lent of Int nal Work. ρ	Heat Equiv lent of E ternal Wo Apu	Entropy o the Liqui θ	Entropy o Vaporis tion. $\frac{r}{T}$	Specific Volume. s	Weight, in Pounds, of One Cubic Foot. γ	Pressure, Pounds p Square Inch. p
279	410.8	384.4	822.8	737.4	85.4	0.5786	.9454	1.672_6	0.5985_2	**279**
280	411.1	384.7	822.6	737.2	85.4	0.5790	.9448	1.666_6	0.600_2	**280**
281	411.4	385.0	822.4	737.0	85.4	0.5794	.9442	1.660_6	0.602_2	**281**
282	411.8	385.4	822.1	736.7	85.4	0.5798	.9435	1.654_5	0.604_2	**282**
283	412.1	385.7	821.9	736.5	85.4	0.5802	.9429	1.649_6	0.606_2	**283**
284	412.4	386.0	821.7	736.3	85.4	0.5806	.9423	1.643_5	0.608_2	**284**
285	412.7	386.4	821.4	776.0	85.4	0.5809	.9416	1.638_6	0.610_2	**285**
286	413.0	386.7	821.2	735.8	85.4	0.5813	.9410	1.632_5	0.612_2	**286**
287	413.4	387.1	820.9	735.5	85.4	0.5817	.9404	1.627_6	0.614_2	**287**
288	413.7	387.4	820.7	735.2	85.5	0.5821	.9399	1.621_5	0.616_2	**288**
289	414.0	387.7	820.5	735.0	85.5	0.5825	.9393	1.616_5	0.618_2	**289**
290	414.3	388.0	820.3	734.8	85.5	0.5829	.9387	1.611_6	0.620_3	**290**
291	414.6	388.3	820.1	734.6	85.5	0.5832	.9382	1.605_5	0.623_2	**291**
292	414.9	388.6	819.9	734.4	85.5	0.5836	.9377	1.600_5	0.625_2	**292**
293	415.3	388.9	819.7	734.2	85.5	0.5840	.9370	1.595_6	0.627_2	**293**
294	415.6	389.3	819.4	733.9	85.5	0.5843	.9363	1.589_5	0.629_2	**294**
295	415.9	389.7	819.1	733.6	85.5	0.5847	.9357	1.584_5	0.631_2	**295**
296	416.2	390.0	818.9	733.4	85.5	0.5851	.9351	1.579_5	0.633_2	**296**
297	416.5	390.3	818.7	733.2	85.5	0.5854	.9345	1.574_6	0.635_2	**297**
298	416.8	390.6	818.5	733.0	85.5	0.5858	.9340	1.568_5	0.637_2	**298**
299	417.1	390.9	818.3	732.8	85.5	0.5862	.9334	1.563_5	0.639_3	**299**
300	417.4	391.3	818.0	732.5	85.5	0.5866	.9328	1.558_5	0.642_2	**300**
301	417.7	391.6	817.7	732.2	85.5	0.5869	.9322	1.553_5	0.644_2	**301**
302	418.0	391.9	817.5	732.0	85.5	0.5873	.9317	1.548_5	0.646_2	**302**
303	418.3	392.2	817.3	731.8	85.5	0.5876	.9311	1.543_5	0.648_2	**303**
304	418.6	392.5	817.1	731.6	85.5	0.5880	.9306	1.538_5	0.650_2	**304**
305	418.9	392.8	816.9	731.4	85.5	0.5884	.9300	1.533_5	0.652_2	**505**
306	419.2	393.1	816.7	731.2	85.5	0.5888	.9294	1.528_4	0.654_2	**306**
307	419.5	393.5	816.4	730.9	85.5	0.5891	.9288	1.524_5	0.656_2	**307**
308	419.8	393.8	816.2	730.7	85.5	0.5894	.9282	1.519_5	0.658_2	**308**
309	420.1	394.1	816.0	730.5	85.5	0.5898	.9277	1.514_5	0.660_2	**309**
310	420.4	394.4	815.8	730.3	85.5	0.5901	.9271	1.509_5	0.662_2	**310**
311	420.7	394.8	815.5	730.0	85.5	0.5905	.9255	1.504_4	0.664_2	**311**
312	421.0	395.1	815.3	729.8	85.5	0.5908	.9260	1.500_5	0.666_3	**312**
313	421.3	395.4	815.0	729.5	85.5	0.5912	.9254	1.495_5	0.669_2	**313**
314	421.6	395.7	814.8	729.2	85.6	0.5916	.9249	1.490_5	0.671_2	**314**
315	421.9	396.0	814.6	729.0	85.6	0.5919	.9243	1.485_5	0.673_2	**315**
316	422.2	396.3	814.4	728.8	85.6	0.5922	.9237	1.480_5	0.675_2	**316**
317	422.5	396.6	814.2	728.6	85.6	0.5926	.9231	1.475_4	0.677_2	**317**
318	422.8	396.9	814.0	728.4	85.6	0.5929	.9226	1.471_4	0.679_2	**318**
319	423.1	397.2	813.8	728.2	85.6	0.5933	.9220	1.467	0.681	**319**

Pressure, Pounds per Square Inch. p	Temperature, Degrees Fahr. t	Heat of the Liquid. q	Heat of Vaporization. r	Heat Equivalent of Internal Work. ρ	Heat Equivalent of External Work. Apu	Entropy of the Liquid. θ	Entropy of Vaporization. $\frac{r}{T}$	Specific Volume. s	DENSITY. Weight, in Pounds, of One Cubic Foot. γ
320	423.4	397.5	813.6	728.0	85.6	0.5936	.9214	1.462_{5}	0.683_{3}
321	423.7	397.8	813.4	727.8	85.6	0.5940	.9209	1.457_{4}	0.686_{2}
322	424.0	398.1	813.1	727.5	85.6	0.5943	.9204	1.453_{5}	0.688_{3}
323	424.2	398.4	812.9	727.3	85.6	0.5946	.9199	1.448_{5}	0.691_{2}
324	424.5	398.7	812.7	727.1	85.6	0.5949	.9193	1.443_{4}	0.693_{2}
325	424.8	399.0	812.5	726.9	85.6	0.5952	.9188	1.439_{5}	0.695_{2}
326	425.1	399.3	812.3	726.7	85.6	0.5956	.9182	1.434_{4}	0.697_{2}
327	425.4	399.6	812.1	726.5	85.6	0.5959	.9176	1.430_{4}	0.699_{2}
328	425.7	399.9	811.9	726.3	85.6	0.5963	.9171	1.426_{4}	0.701_{2}
329	426.0	400.2	811.7	726.1	85.6	0.5967	.9166	1.422_{5}	0.703_{3}
330	426.2	400.5	811.4	725.8	85.6	0.5970	.9161	1.417_{4}	0.706_{2}
331	426.5	400.8	811.2	725.6	85.6	0.5973	.9156	1.413_{4}	0.708_{2}
332	426.8	401.1	811.0	725.4	85.6	0.5977	.9151	1.409_{4}	0.710_{2}
333	427.1	401.4	810.8	725.2	85.6	0.5980	.9145	1.405_{4}	0.712_{2}
334	427.4	401.7	810.6	725.0	85.6	0.5983	.9140	1.401_{4}	0.714_{2}
335	427.6	402.0	810.4	724.8	85.6	0.5987	.9136	1.397_{4}	0.716_{2}
336	427.9	402.3	810.2	724.6	85.6	0.5990	.9131	1.393	0.718

Table III.

SATURATED STEAM.

FRENCH AND ENGLISH CONVERSION TABLES.*

Temperature, Degrees Centigrade.	Pressure.			Heat of the Liquid.		Heat of Vaporization.		Heat Equivalent of Internal Work.		Temperature, Degrees Fahr.
	Millimeters of Mercury.	Kilograms per Square Centimeter.	Pounds per Square Inch.	Calories.	B.T.U.	Calories.	B.T.U.	Calories.	B.T.U.	
t	p	p	p	q	q	r	r	ρ	ρ	t
0	4.602 $_{339}$	.006257 $_{461}$	0.0890 $_{65}$	0.00	0.0	606.5	1091.7	575.4	1035.8	**32**
1	4.941 $_{362}$	.006718 $_{492}$	0.0955 $_{71}$	1.01	1.8	605.8	1090.4	574.6	1034.4	**33.8**
2	5.303 $_{386}$	.007210 $_{525}$	0.1026 $_{74}$	2.02	3.6	605.1	1089.1	573.8	1033.0	**35.6**
3	5.689 $_{411}$	.007735 $_{558}$	0.1100 $_{79}$	3.03	5.5	604.4	1087.9	573.1	1031.5	**37.4**
4	6.100 $_{436}$	.008293 $_{593}$	0.1179 $_{85}$	4.03	7.3	603.7	1086.6	572.3	1030.1	**39.2**
5	6.536 $_{465}$	.008886 $_{633}$	0.1264 $_{90}$	5.04	9.1	603.0	1085.3	571.5	1028.7	**41.0**
6	7.001 $_{493}$	.009519 $_{679}$	0.1354 $_{95}$	6.04	10.9	602.3	1084.1	570.7	1027.3	**42.8**
7	7.494 $_{525}$	.010198 $_{71}$	0.1449 $_{102}$	7.05	12.7	601.5	1082.8	569.9	1025.9	**44.6**
8	8.019 $_{557}$	.01090 $_{76}$	0.1551 $_{107}$	8.05	14.5	600.8	1081.6	569.1	1024.5	**46.4**
9	8.576 $_{591}$	.01166 $_{80}$	0.1658 $_{115}$	9.05	16.3	600.1	1080.3	568.3	1023.1	**48.2**
10	9.167 $_{628}$	.01246 $_{86}$	0.1773 $_{121}$	10.06	18.1	599.5	1079.1	567.6	1021.7	**50.0**
11	9.795 $_{665}$	.01332 $_{90}$	0.1894 $_{129}$	11.06	19.9	598.8	1077.8	566.8	1020.3	**51.8**
12	10.46 $_{70}$	.01422 $_{95}$	0.2023 $_{136}$	12.06	21.7	598.1	1076.6	566.0	1018.9	**53.6**
13	11.16 $_{75}$	.01517 $_{102}$	0.2159 $_{144}$	13.06	23.5	597.4	1075.3	565.2	1017.5	**55.4**
14	11.91 $_{79}$	.01619 $_{108}$	0.2303 $_{153}$	14.06	25.3	596.7	1074.1	564.4	1016.1	**57.2**
15	12.70 $_{84}$	.01727 $_{114}$	0.2456 $_{163}$	15.06	27.1	596.0	1072.8	563.7	1014.7	**59.0**
16	13.54 $_{88}$	.01841 $_{120}$	0.2619 $_{170}$	16.06	28.9	595.3	1071.6	562.9	1013.3	**60.8**
17	14.42 $_{94}$	.01961 $_{127}$	0.2789 $_{181}$	17.06	30.7	594.6	1070.3	562.1	1011.9	**62.6**
18	15.36 $_{99}$	.02088 $_{135}$	0.2970 $_{192}$	18.06	32.5	593.9	1069.1	561.3	1010.5	**64.4**
19	16.35 $_{105}$	.02223 $_{143}$	0.3162 $_{202}$	19.06	34.3	593.2	1067.8	560.5	1009.1	**66.2**
20	17.40 $_{110}$	.02366 $_{149}$	0.3364 $_{214}$	20.06	36.1	592.5	1066.6	559.7	1007.7	**68.0**
21	18.50 $_{116}$	.02515 $_{158}$	0.3578 $_{225}$	21.06	37.9	591.8	1065.3	558.9	1006.3	**69.8**
22	19.66 $_{123}$	.02673 $_{167}$	0.3803 $_{238}$	22.06	39.7	591.1	1064.1	558.1	1004.9	**71.6**
23	20.89 $_{130}$	.02840 $_{177}$	0.4041 $_{250}$	23.06	41.5	590.4	1062.8	557.4	1003.4	**73.4**
24	22.19 $_{136}$	.03017 $_{185}$	0.4291 $_{264}$	24.06	43.3	589.7	1061.6	556.6	1002.0	**75.2**
25	23.55 $_{144}$	.03202 $_{196}$	0.4555 $_{279}$	25.05	45.1	589.0	1060.3	555.8	1000.6	**77.0**
26	24.99 $_{152}$	.03398 $_{206}$	0.4834 $_{293}$	26.05	46.9	588.3	1059.1	555.0	999.2	**78.8**
27	26.51	.03604	0.5127	27.05	48.7	587.6	1057.8	554.3	997.8	**80.6**

TABLE III.

SATURATED STEAM.

FRENCH AND ENGLISH CONVERSION TAB

Temperature, Degrees Centigrade.	Heat Equivalent of External Work.		Entropy of the Liquid.	Entropy of Vaporization.	Specific Volume.		Weight in Kilo-grams of One
	Calories.	B.T.U.			Cubic Meters per Kilo.	Cubic Feet per Pound.	
t	$A\,pu$	$A\,pu$	θ	$\frac{r}{T}$	s	s	γ
0	31.1	55.9	0	2.2211	212.0$_{138}$	3395$_{220}$	0.00471
1	31.2	56.0	0.0037	2.2105	198.2$_{132}$	3175$_{212}$	0.00504
2	31.3	56.2	0.0074	2.2000	185.0$_{122}$	2963$_{195}$	0.00540
3	31.3	56.3	0.0110	2.1890	172.8$_{112}$	2768$_{179}$	0.00578
4	31.4	56.5	0.0146	2.1789	161.6$_{104}$	2589$_{168}$	0.00618
5	31.5	56.6	0.0183	2.1684	151.2$_{96}$	2421$_{153}$	0.00661
6	31.6	56.8	0.0219	2.1583	141.6$_{91}$	2268$_{146}$	0.00706
7	31.7	56.9	0.0256	2.1482	132.5$_{83}$	2122$_{133}$	0.00754
8	31.7	57.1	0.0290	2.1379	124.2$_{78}$	1989$_{124}$	0.00805
9	31.8	57.2	0.0326	2.1279	116.4$_{71}$	1865$_{116}$	0.00859
10	31.9	57.4	0.0361	2.1180	109.3$_{68}$	1749$_{107}$	0.00914
11	32.0	57.5	0.0397	2.1081	102.5$_{62}$	1642$_{99}$	0.00975
12	32.1	57.7	0.0433	2.0983	96.33$_{591}$	1543$_{95}$	0.01038
13	32.2	57.8	0.0467	2.0885	90.42$_{547}$	1448$_{87}$	0.01105
14	32.3	58.0	0.0502	2.0786	84.95$_{508}$	1361$_{82}$	0.01177
15	32.3	58.1	0.0537	2.0691	79.87$_{471}$	1279$_{75}$	0.01252
16	32.4	58.3	0.0571	2.0595	75.16$_{443}$	1204$_{71}$	0.01330
17	32.5	58.4	0.0607	2.0502	70.73$_{413}$	1133$_{66}$	0.01413
18	32.6	58.6	0.0641	2.0410	66.60$_{387}$	1067$_{62}$	0.0150
19	32.7	58.7	0.0675	2.0313	62.73$_{361}$	1005$_{558}$	0.0159
20	32.8	58.9	0.0709	2.0221	59.12$_{338}$	946.9$_{540}$	0.0169
21	32.9	59.1	0.0743	2.0129	55.74$_{316}$	892.9$_{507}$	0.0179
22	33.0	59.2	0.0776	2.0035	52.58$_{296}$	842.2$_{474}$	0.0190
23	33.0	59.4	0.0811	1.9945	49.62$_{278}$	794.8$_{445}$	0.0201
24	33.1	59.5	0.0845	1.9854	46.84$_{259}$	750.3$_{416}$	0.0213
25	33.2	59.7	0.0878	1.9763	44.25$_{243}$	708.7$_{388}$	0.0226
26	33.3	59.9	0.0911	1.9673	41.82$_{228}$	669.9$_{365}$	0.0239

Temperature, Degrees Centigrade.	Pressure.			Heat of the Liquid.		Heat of Vaporization.		…lent of Internal Work.		Temperature, Degrees Fahr.
	Millimeters of Mercury	Kilograms per Square Centimeter.	Pounds per Square Inch.	Calories.	B.T.U.	Calories.	B.T.U.	Calories.	B.T.U.	
t	p	p	p	q	q	r	r	ρ	ρ	t
31	33.41_{195}	0.04543_{265}	0.6462_{377}	31.04	55.9	585.0	1052.9	551.2	992.2	**87.8**
32	35.36_{206}	0.04808_{279}	0.6839_{397}	32.04	57.7	584.3	1051.6	550.4	990.7	**89.6**
33	37.42_{215}	0.05087_{294}	0.7236_{417}	33.04	59.5	583.6	1050.3	549.6	989.2	**91.4**
34	39.57_{226}	0.05381_{307}	0.7653_{437}	34.03	61.3	582.9	1049.0	548.8	987.8	**93.2**
35	41.83_{238}	0.05688_{323}	0.8090_{460}	35.03	63.1	582.2	1047.8	548.1	986.4	**95.0**
36	44.21_{249}	0.06011_{339}	0.8550_{481}	36.03	64.9	581.5	1046.6	547.3	985.0	**96.8**
37	46.70_{261}	0.06350_{355}	0.9031_{505}	37.02	66.6	580.8	1045.4	546.5	983.6	**98.6**
38	49.31_{274}	0.06705_{372}	0.9536_{530}	38.02	68.4	580.1	1044.2	545.7	982.2	**100.4**
39	52.05_{286}	0.07077_{389}	1.0066_{553}	39.02	70.2	579.4	1042.9	544.9	980.9	**102.2**
40	54.91_{301}	0.07466_{410}	1.0619_{583}	40.02	72.0	578.7	1041.7	544.1	979.5	**104.0**
41	57.92_{314}	0.07876_{427}	1.1202_{607}	41.01	73.8	578.0	1040.4	543.3	978.1	**105.8**
42	61.06_{329}	0.08303_{447}	1.1809_{636}	42.01	75.6	577.3	1039.2	542.5	976.6	**107.6**
43	64.35_{345}	0.08750_{469}	1.2445_{668}	43.01	77.4	576.6	1037.9	541.7	975.2	**109.4**
44	67.80_{360}	0.09219_{488}	1.3113_{694}	44.01	79.2	575.9	1036.7	540.9	973.7	**111.2**
45	71.40_{376}	0.09707_{513}	1.3807_{729}	45.00	81.0	575.2	1035.4	540.1	972.3	**113.0**
46	75.16_{394}	0.10220_{536}	1.4536_{762}	46.00	82.8	574.5	1034.1	539.3	970.9	**114.8**
47	79.10_{411}	0.10756_{558}	1.5298_{795}	47.00	84.6	573.8	1032.9	538.5	969.5	**116.6**
48	83.21_{430}	0.11314_{585}	1.6093_{831}	48.00	86.4	573.1	1031.6	537.7	968.0	**118.4**
49	87.51_{447}	0.11899_{608}	1.6924_{865}	48.99	88.2	572.4	1030.5	537.0	966.7	**120.2**
50	91.98_{467}	0.12507_{634}	1.7789_{901}	49.99	90.0	571.8	1029.2	536.3	965.3	**122.0**
51	96.65_{489}	0.13141_{663}	1.8690_{944}	50.99	91.8	571.1	1027.9	535.5	963.9	**123.8**
52	101.54_{510}	0.13804_{693}	1.9634_{986}	51.99	93.6	570.4	1026.7	534.6	962.4	**125.6**
53	106.64_{531}	0.14497_{723}	2.0620_{1027}	52.99	95.4	569.7	1025.4	533.8	961.0	**127.4**
54	111.95_{554}	0.15220_{754}	2.1647_{1072}	53.98	97.2	569.0	1024.2	533.0	959.5	**129.2**
55	117.49_{576}	0.15974_{783}	2.2719_{1114}	54.98	99.0	568.3	1022.9	532.2	958.1	**131.0**
56	123.25_{601}	0.16757_{817}	2.3833_{1162}	55.98	100.8	567.6	1021.7	531.5	956.7	**132.8**
57	129.26_{625}	0.17574_{850}	2.4995_{1209}	56.98	102.6	566.9	1020.4	530.8	955.3	**134.6**
58	135.51_{651}	0.18424_{884}	2.6204_{1259}	57.98	104.4	566.2	1019.2	530.0	953.8	**136.4**
59	142.02_{678}	0.19308_{922}	2.7463_{1311}	58.97	106.2	565.5	1017.9	529.2	952.4	**138.2**
60	148.80_{705}	0.20230_{959}	2.8774_{1363}	59.97	108.0	564.8	1016.6	528.4	950.9	**140.0**
61	155.85_{733}	0.21189_{996}	3.0137_{1418}	60.97	109.8	564.1	1015.3	527.6	949.5	**141.8**
62	163.18_{762}	0.22185_{1037}	3.1555_{1474}	61.97	111.6	563.4	1014.1	526.8	948.0	**143.6**
63	170.80_{792}	0.23222_{1075}	3.3029_{1531}	62.97	113.4	562.7	1012.9	526.0	946.7	**145.4**
64	178.72_{823}	0.24297_{1120}	3.4560_{1592}	63.98	115.2	562.0	1011.7	525.1	945.2	**147.2**
65	186.95_{855}	0.25417_{1163}	3.6152_{1654}	64.98	117.0	561.3	1010.4	524.3	943.8	**149.0**
66	195.50_{888}	0.26580_{1207}	3.7806_{1717}	65.98	118.8	560.6	1009.2	523.5	942.4	**150.8**
67	204.38_{922}	0.27787_{1254}	3.9523_{1783}	66.98	120.6	559.9	1007.8	522.7	940.9	**152.6**
68	213.60_{957}	0.29041_{1301}	4.1306_{1851}	67.98	122.4	559.2	1006.6	521.9	939.5	**154.4**
69	223.17_{992}	0.30342_{1348}	4.3157_{1918}	68.98	124.2	558.5	1005.3	521.1	938.0	**156.2**
70	233.09	0.31690	4.5075	69.98	126.0	557.8	1004.1	520.5	936.7	**158.0**

Temperature, Degrees Centigrade.	Equivalent of External Work.		Entropy of the Liquid.	Entropy of Vaporization.	Volume.		Weight, in Kilograms, of One Cubic Meter.	Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahrenheit.
	Calories.	B.T.U.			Cubic Meters per Kilo.	Cubic Feet per Pound.			
t	Apu	Apu	θ	$\frac{r}{T}$	s	s	γ	γ	t
31	33.8	60.7	0.1077	1.9238	31.72_{167}	508.1_{267}	0.03153_{175}	0.001968_{109}	**87.8**
32	33.9	60.9	0.1110	1.9152	30.05_{157}	481.4_{252}	0.03328_{183}	0.002077_{115}	**89.6**
33	34.0	61.0	0.1142	1.9066	28.48_{148}	456.2_{237}	0.03511_{193}	0.002192_{120}	**91.4**
34	34.1	61.2	0.1175	1.8981	27.00_{138}	432.5_{223}	0.03704_{199}	0.002312_{126}	**93.2**
35	34.1	61.4	0.1207	1.8896	25.62_{131}	410.2_{208}	0.03903_{211}	0.002438_{130}	**95.0**
36	34.2	61.6	0.1239	1.8814	24.31_{124}	389.4_{199}	0.04114_{221}	0.002568_{138}	**96.8**
37	34.3	61.7	0.1272	1.8732	23.07_{116}	369.5_{185}	0.04335_{229}	0.002706_{143}	**98.6**
38	34.4	61.9	0.1304	1.8649	21.91_{110}	351.0_{177}	0.04564_{241}	0.002849_{151}	**100.4**
39	34.5	62.0	0.1336	1.8566	20.81_{103}	333.3_{165}	0.04805_{251}	0.003000_{157}	**102.2**
40	34.6	62.2	0.1368	1.8485	19.78_{98}	316.8_{157}	0.05056_{263}	0.003157_{164}	**104.0**
41	34.7	62.4	0.1399	1.8405	18.80_{92}	301.1_{147}	0.05319_{274}	0.003321_{171}	**105.8**
42	34.8	62.6	0.1431	1.8324	17.88_{86}	286.4_{138}	0.05593_{282}	0.003492_{176}	**107.6**
43	34.9	62.7	0.1463	1.8243	17.02_{82}	272.6_{131}	0.05875_{298}	0.003668_{186}	**109.4**
44	35.0	62.9	0.1494	1.8164	16.20_{78}	259.5_{125}	0.06173_{312}	0.003854_{195}	**111.2**
45	35.1	63.1	0.1526	1.8085	15.42_{73}	247.0_{117}	0.06485_{322}	0.004049_{201}	**113.0**
46	35.2	63.3	0.1557	1.8007	14.69_{69}	235.3_{110}	0.06807_{336}	0.004250_{208}	**114.8**
47	35.3	63.4	0.1588	1.7929	14.00_{66}	224.3_{106}	0.07143_{353}	0.004458_{221}	**116.6**
48	35.4	63.6	0.1619	1.7851	13.34_{63}	213.7_{101}	0.07496_{372}	0.004679_{233}	**118.4**
49	35.5	63.7	0.1650	1.7774	12.71_{58}	203.6_{93}	0.07868_{376}	0.004912_{235}	**120.2**
50	35.6	63.9	0.1682	1.7699	12.13_{55}	194.3_{88}	0.08244_{392}	0.005147_{244}	**122.0**
51	35.7	64.1	0.1713	1.7623	11.58_{53}	185.5_{85}	0.08636_{414}	0.005391_{259}	**123.8**
52	35.8	64.3	0.1743	1.7548	11.05_{50}	177.0_{80}	0.09050_{429}	0.005650_{267}	**125.6**
53	35.9	64.4	0.1774	1.7472	10.55_{47}	169.0_{75}	0.09479_{442}	0.005917_{275}	**127.4**
54	36.0	64.6	0.1804	1.7397	10.08_{45}	161.5_{73}	0.09921_{469}	0.006192_{293}	**129.2**
55	36.1	64.8	0.1835	1.7323	9.628_{425}	154.2_{68}	0.1039_{48}	0.006485_{299}	**131.0**
56	36.2	65.0	0.1865	1.7249	9.203_{403}	147.4_{64}	0.1087_{49}	0.006784_{308}	**132.8**
57	36.2	65.2	0.1895	1.7175	8.800_{383}	141.0_{62}	0.1136_{52}	0.007092_{326}	**134.6**
58	36.3	65.3	0.1925	1.7102	8.417_{363}	134.8_{58}	0.1188_{54}	0.007418_{334}	**136.4**
59	36.4	65.5	0.1955	1.7029	8.054_{351}	129.0_{56}	0.1242_{56}	0.007752_{348}	**138.2**
60	36.5	65.7	0.1986	1.6957	7.703_{326}	123.4_{52}	0.1298_{58}	0.008100_{360}	**140.0**
61	36.6	65.9	0.2016	1.6886	7.377_{312}	118.2_{50}	0.1356_{59}	0.008460_{374}	**141.8**
62	36.7	66.1	0.2046	1.6815	7.065_{297}	113.2_{48}	0.1415_{63}	0.008834_{383}	**143.6**
63	36.8	66.2	0.2075	1.6745	6.768_{285}	108.4_{46}	0.1478_{65}	0.009225_{391}	**145.4**
64	36.9	66.4	0.2105	1.6675	6.483_{270}	103.8_{425}	0.1543_{67}	0.009634_{416}	**147.2**
65	37.0	66.6	0.2135	1.6605	6.213_{254}	99.54_{409}	0.1610_{68}	0.01005_{43}	**149.0**
66	37.1	66.8	0.2164	1.6536	5.959_{242}	95.45_{387}	0.1678_{71}	0.01048_{44}	**150.8**
67	37.2	66.9	0.2194	1.6467	5.717_{233}	91.58_{374}	0.1749_{74}	0.01092_{46}	**152.6**
68	37.3	67.1	0.2123	1.6398	5.484_{222}	87.84_{355}	0.1823_{77}	0.01138_{48}	**154.4**
69	37.4	67.2	0.2153	1.6329	5.262_{211}	84.29_{341}	0.1900_{80}	0.01186_{50}	**156.2**
70	37.5	67.4	0.2282	1.6261	5.051	80.88	0.1980	0.01236_{51}	**158.0**

Temperature, Degrees Centigrade. t	Pressure. Millimeters of Mercury. p	diff.	Pressure. Kilograms per Square Centimeter. p	diff.	Pressure. Pounds per Square Inch. p	diff.	Heat of the Liquid. Calories. q	Heat of the Liquid. B.T.U. q	Heat of Vaporization. Calories. r	Heat of Vaporization. B.T.U. r	Heat Equivalent of Internal Work. Calories. ρ	Heat Equivalent of Internal Work. B.T.U. ρ	Temperature, Degrees Fahr. t
71	243.39	1068	0.33091	1453	4.7067	2065	70.98	127.8	557.2	1002.9	519.7	935.3	**159.8**
72	254.07	1107	0.34544	1506	4.9132	2141	71.99	129.6	556.5	1001.6	518.9	933.9	**161.6**
73	265.14	1148	0.36050	1559	5.1273	2220	72.99	131.4	555.8	1000.4	518.1	932.4	**163.4**
74	276.62	1189	0.37609	1617	5.3493	2299	73.99	133.2	555.1	999.1	517.3	931.0	**165.2**
75	288.51	1232	0.39226	1674	5.5792	2383	74.99	135.0	554.4	997.9	516.5	929.6	**167.0**
76	300.83	1276	0.40900	1736	5.8175	2467	76.00	136.8	553.7	996.6	515.7	928.2	**168.8**
77	313.59	1321	0.42636	1797	6.0642	2555	77.00	138.6	553.0	995.4	514.8	926.8	**170.6**
78	326.80	1368	0.44433	1860	6.3197	2645	78.00	140.4	552.3	994.2	514.0	925.4	**172.4**
79	340.48	1415	0.46293	1924	6.5842	2736	79.01	142.2	551.6	992.9	513.2	923.9	**174.2**
80	354.63	1464	0.48217	1988	6.8578	2831	80.01	144.0	550.9	991.6	512.5	922.5	**176.0**
81	369.27	1514	0.50205	2059	7.1409	2928	81.02	145.8	550.2	990.3	511.7	921.1	**177.8**
82	384.41	1567	0.52264	2131	7.4337	3030	82.02	147.6	549.5	989.1	510.9	919.6	**179.6**
83	400.08	1619	0.54395	2203	7.7367	3132	83.03	149.4	548.8	987.8	510.1	918.2	**181.4**
84	416.27	1674	0.56598	2272	8.0499	3231	84.03	151.2	548.1	986.6	509.3	916.7	**183.2**
85	433.01	1730	0.58870	2368	8.3730	3351	85.04	153.1	547.4	985.3	508.5	915.3	**185.0**
86	450.31	1787	0.61238	2418	8.7081	3456	86.04	154.9	546.7	984.0	507.7	913.9	**186.8**
87	468.18	1846	0.63656	2506	9.0537	3569	87.05	156.7	545.9	982.8	506.9	912.5	**188.6**
88	486.64	1907	0.66162	2593	9.4106	3684	88.06	158.5	545.2	981.5	506.1	911.0	**190.4**
89	505.71	1969	0.68755	2680	9.779	381	89.06	160.3	544.5	980.3	505.2	909.6	**192.2**
90	525.40	2032	0.71435	2760	10.160	393	90.07	162.1	543.9	979.0	504.5	908.2	**194.0**
91	545.72	2098	0.74195	2855	10.553	406	91.08	163.9	543.2	977.8	503.9	906.9	**195.8**
92	566.70	2164	0.77050	2938	10.959	418	92.08	165.7	542.5	976.6	503.1	905.5	**197.6**
93	588.34	2233	0.79988	3037	11.377	432	93.09	167.5	541.8	975.2	502.2	904.0	**199.4**
94	610.67	2303	0.83025	3130	11.809	445	94.10	169.3	541.1	974.0	501.4	902.6	**201.2**
95	633.70	2375	0.86155	3233	12.254	460	95.11	171.2	540.4	972.7	500.6	901.2	**203.0**
96	657.45	2448	0.89388	3327	12.714	473	96.12	173.0	539.7	971.4	499.8	899.7	**204.8**
97	681.93	2524	0.92715	3430	13.187	488	97.12	174.8	539.0	970.1	499.0	898.3	**206.6**
98	707.17	2602	0.96145	3535	13.675	503	98.13	176.6	538.3	969.0	498.4	896.9	**208.4**
99	733.19	2681	0.99680	3650	14.178	519	99.14	178.5	537.6	967.6	497.5	895.4	**210.2**
100	760.00	275	1.0333	374	14.697	532	100.2	180.3	536.8	966.3	496.6	893.9	**212.0**
101	787.5	283	1.0707	386	15.229	547	101.2	182.1	536.1	965.0	495.8	892.5	**213.8**
102	815.8	292	1.1093	397	15.776	565	102.2	183.9	535.4	963.7	494.9	891.0	**215.6**
103	845.0	301	1.1490	408	16.341	582	103.2	185.7	534.7	962.5	494.1	889.6	**217.4**
104	875.1	[illegible]	1.1898	[illegible]	16.923	[illegible]	104.2	187.6	534.0	961.1	493.4	888.0	**219.2**

Temperature, Degrees Cen- grade.	Equivalent of External Work.		Entropy of t[he] Liquid.	Entropy of Vaporization	Volume.							
	Calories.	B.T.U.			Cubic Meters per Kilo.		Cubic Feet per Pound.		Weight, in Kilograms, of One Cubic Meter.		Weight, in Pounds, of One Cubic Foot.	
t	Apu	Apu	θ	$\frac{r}{T}$	s		s		γ		γ	
71	37.6	67.6	0.2311	1.6194	4.850	191	77.69	306	0.2062	84	0.01287	53
72	37.7	67.8	0.2340	1.6126	4.659	184	74.63	295	0.2146	89	0.01340	55
73	37.8	67.9	0.2369	1.6060	4.475	175	71.68	281	0.2235	91	0.01395	57
74	37.9	68.1	0.2398	1.5994	4.300	166	68.87	266	0.2326	93	0.01452	58
75	38.0	68.3	0.2427	1.5928	4.134	160	66.21	255	0.2419	97	0.01510	61
76	38.1	68.5	0.2456	1.5862	3.974	152	63.66	244	0.2516	100	0.01571	62
77	38.2	68.6	0.2484	1.5797	3.822	145	61.22	232	0.2616	104	0.01633	65
78	38.3	68.8	0.2513	1.5733	3.677	139	58.90	223	0.2720	106	0.01698	67
79	38.4	68.9	0.2541	1.5668	3.538	132	56.67	213	0.2826	110	0.01765	69
80	38.4	69.1	0.2570	1.5604	3.406	128	54.54	203	0.2936	115	0.01834	70
81	38.5	69.3	0.2598	1.5540	3.278	121	52.51	194	0.3051	117	0.01904	73
82	38.6	69.5	0.2626	1.5477	3.157	117	50.57	187	0.3168	121	0.01977	76
83	38.7	69.6	0.2654	1.5414	3.040	111	48.70	178	0.3289	125	0.02053	78
84	38.8	69.8	0.2682	1.5351	2.929	107	46.92	172	0.3414	130	0.02131	81
85	38.9	70.0	0.2711	1.5288	2.822	102	45.20	164	0.3544	134	0.02212	84
86	39.0	70.2	0.2739	1.5226	2.720	98	43.56	156	0.3676	138	0.02296	86
87	39.1	70.3	0.2767	1.5164	2.622	93	42.00	149	0.3814	140	0.02381	88
88	39.2	70.5	0.2795	1.5103	2.529	90	40.51	144	0.3954	146	0.02469	91
89	39.3	70.6	0.2823	1.5042	2.439	86	39.07	139	0.4100	150	0.02560	94
90	39.4	70.8	0.2851	1.4981	2.353	82	37.68	130	0.4250	153	0.02654	95
91	39.4	70.9	0.2879	1.4921	2.271	80	36.38	128	0.4403	161	0.02749	100
92	39.5	71.1	0.2906	1.4861	2.191	76	35.10	122	0.4564	164	0.02849	103
93	39.6	71.2	0.2934	1.4801	2.115	72	33.88	117	0.4728	167	0.02952	105
94	39.7	71.4	0.2961	1.4741	2.043	71	32.71	112	0.4895	176	0.03057	109
95	39.8	71.5	0.2989	1.4682	1.972	67	31.59	108	0.5071	178	0.03166	112
96	39.9	71.7	0.3016	1.4623	1.905	65	30.51	104	0.5249	186	0.03278	115
97	40.0	71.9	0.3043	1.4564	1.840	62	29.47	99	0.5435	189	0.03393	118
98	40.0	72.0	0.3070	1.4506	1.778	59	28.48	94	0.5624	193	0.03511	120
99	40.1	72.2	0.3097	1.4448	1.719	54	27.54	88	0.5817	189	0.03631	120
100	40.3	72.4	0.3125	1.4390	1.665	52	26.66	82	0.6006	194	0.03751	119
101	40.4	72.6	0.3152	1.4333	1.613	53	25.84	85	0.6200	210	0.03870	132
102	40.5	72.8	0.3179	1.4276	1.560	51	24.99	82	0.6410	217	0.04002	135
103	40.6	72.9	0.3205	1.4219	1.509	50	24.17	80	0.6627	227	0.04137	142
104	40.6	73.0	0.3232	1.4162	1.459	47	23.37	76	0.6854	228	0.04279	144
105	40.7	73.2	0.3259	1.4106	1.412	45	22.61	72	0.7082	233	0.04423	145
106	40.8	73.3	0.3286	1.4051	1.367	44	21.89	70	0.7315	244	0.04568	151
107	40.9	73.5	0.3312	1.3996	1.323	42	21.19	67	0.7559	247	0.04719	154
108	40.9	73.6	0.3339	1.3941	1.281	41	20.52	66	0.7806	259	0.04873	162
109	41.0	73.8	0.3365	1.3886	1.240	39	19.86	62	0.8065	261	0.05035	162
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.201		19.24		0.8326		0.05197	

Degrees Centigrade.	Pressure.						Heat of the Liquid.		Heat of Vaporization.		...lent of Internal Work.		Temperature, Degrees Fahr.
t	Millimeters of Mercury. p	Diff.	Kilograms per Square Centimeter. p	Diff.	Pounds per Square Inch. p	Diff.	Calories. q	B.T.U. q	Calories. r	B.T.U. r	Calories. ρ	B.T.U. ρ	t
11	1111.4	377	1.5110	513	21.492	729	111.3	200.3	529.1	952.3	488.0	878.3	**231.8**
12	1149.1	388	1.5623	528	22.221	751	112.3	202.1	528.4	951.1	487.2	877.0	**233.6**
13	1187.9	398	1.6151	541	22.972	769	113.3	203.9	527.7	949.8	486.5	875.4	**235.4**
14	1227.7	410	1.6692	556	23.741	792	114.3	205.8	527.0	948.5	485.6	874.0	**237.2**
15	1268.7	420	1.7248	572	24.533	813	115.3	207.6	526.3	947.2	484.8	872.6	**239.0**
16	1310.7	432	1.7820	588	25.346	836	116.4	209.4	525.5	945.9	484.0	871.2	**240.8**
17	1353.9	444	1.8408	603	26.182	858	117.4	211.2	524.8	944.5	483.2	869.7	**242.6**
18	1398.3	455	1.9011	619	27.040	880	118.4	213.0	524.1	943.3	482.4	868.3	**244.4**
19	1443.8	467	1.9630	635	27.920	904	119.4	214.9	523.4	942.2	481.7	867.0	**246.2**
20	1490.5	480	2.0265	653	28.824	928	120.4	216.7	522.7	940.9	480.9	865.6	**248.0**
21	1538.5	492	2.0918	668	29.752	951	121.4	218.5	522.0	939.6	480.2	864.2	**249.8**
22	1587.7	506	2.1586	688	30.703	978	122.5	220.4	521.2	938.2	479.3	862.7	**251.6**
23	1638.3	518	2.2274	704	31.681	1.002	123.5	222.2	520.5	937.0	478.5	861.2	**253.4**
24	1690.1	532	2.2978	723	32.683	1.028	124.5	224.1	519.8	935.7	477.7	859.8	**255.2**
25	1743.3	545	2.3701	742	33.711	1.055	125.5	225.9	519.1	934.4	476.9	858.4	**257.0**
26	1797.8	559	2.4443	760	34.766	1.081	126.5	227.7	518.4	933.2	476.2	857.0	**258.8**
27	1853.7	573	2.5203	779	35.847	1.108	127.5	229.5	517.6	931.8	475.3	855.5	**260.6**
28	1911.0	587	2.5982	798	36.955	1.135	128.6	231.4	516.9	930.6	474.5	854.2	**262.4**
29	1969.7	601	2.6780	819	38.090	1.165	129.6	233.3	516.2	929.3	473.7	852.8	**264.2**
30	2029.8	617	2.7599	837	39.255	1.190	130.6	235.1	515.6	928.1	473.0	851.4	**266.0**
31	2091.5	633	2.8436	861	40.445	1.225	131.6	236.9	514.9	926.8	472.3	850.0	**267.8**
32	2154.8	647	2.9297	879	41.670	1.251	132.6	238.7	514.2	925.5	471.5	848.6	**269.6**
33	2219.5	663	3.0176	902	42.921	1.282	133.7	240.6	513.5	924.2	470.6	847.0	**271.4**
34	2285.8	679	3.1078	922	44.203	1.312	134.7	242.4	512.8	922.9	469.8	845.6	**273.2**
35	2353.7	695	3.2000	946	45.515	1.345	135.7	244.2	512.1	921.6	469.1	844.2	**275.0**
36	2423.2	712	3.2946	968	46.860	1.377	136.7	246.0	511.4	920.2	468.2	842.7	**276.8**
37	2494.4	728	3.3914	990	48.237	1.408	137.7	247.9	510.7	919.0	467.4	841.3	**278.6**
38	2567.2	745	3.4904	1012	49.645	1.440	138.8	249.7	510.0	917.6	466.6	839.8	**280.4**
39	2641.7	762	3.5916	1037	51.085	1.475	139.8	251.6	509.2	916.5	465.8	838.5	**282.2**
0	2717.9	780	3.6953	1062	52.56	1.51	140.8	253.4	508.6	915.2	465.0	837.1	**284.0**
1	2795.9	798	3.8015	1083	54.07	1.54	141.8	255.3	507.9	913.8	464.2	835.6	**285.8**
2	2875.7	816	3.9098	1110	55.61	1.58	142.8	257.1	507.0	912.6	463.4	834.2	**287.6**
3	2957.3	835	4.0208	1132	57.19	1.61	143.9	259.0	506.2	911.2	462.6	832.8	**289.4**
4	3040.8	853	4.1340	1160	58.80	1.65	144.9	260.8	505.5	910.0	461.8	831.4	**291.2**
5	3126.1	872	4.2500	1189	60.45	1.69	145.9	262.7	504.8	908.6	461.0	829.9	**293.0**
6	3213.3	892	4.3689	1209	62.14	1.72	146.9	264.5	504.1	907.3	460.2	828.5	**294.8**
7	3302.5	911	4.4898	1244	63.86	1.77	148.0	266.4	503.3	906.2	459.4	827.2	**296.6**
8	3393.6	931	4.6142	1266	65.63	1.80	149.0	268.2	502.6	904.8	458.7	825.7	**298.4**
9	3486.7	952	4.7408	1293	67.43	1.84	150.0	270.1	501.9	903.6	457.9	824.3	**300.2**
0	3581.9		4.8701		69.27		151.0	271.9	501.2	902.3	457.1	822.8	**302.0**

Temperature, Degrees Centigrade.	Equivalent of External Work. Calories.	Equivalent of External Work. B.T.U.	Entropy of the Liquid.	Entropy of Vaporization.	Volume. Cubic Meters per Kilo.	Volume. Cubic Feet per Pound.	Density. Weight, in Kilograms, of One Cubic Meter.	Density. Weight, in Pounds, of One Cubic Foot.	
t	Apu	Apu	θ	$\frac{r}{T}$	s	s	γ	γ	
111	41.2	74.0	0.3418	1.3776	1.164_{36}	18.65_{58}	0.8591_{274}	0.05362_{172}	2
112	41.3	74.2	0.3445	1.3722	1.128_{35}	18.07_{56}	0.8865_{284}	0.05534_{177}	2
113	41.3	74.3	0.3471	1.3668	1.093_{34}	17.51_{55}	0.9149_{294}	0.05711_{185}	2
114	41.4	74.5	0.3498	1.3614	1.059_{32}	16.96_{51}	0.9443_{294}	0.05896_{183}	2
115	41.5	74.6	0.3524	1.3560	1.027_{31}	16.45_{49}	0.9737_{303}	0.06079_{187}	2
116	41.6	74.7	0.3550	1.3507	0.9961_{300}	15.96_{48}	1.004_{31}	0.06266_{194}	2
117	41.6	74.9	0.3576	1.3455	0.9661_{290}	15.48_{47}	1.035_{32}	0.06460_{202}	2
118	41.7	75.0	0.3602	1.3403	0.9371_{277}	15.01_{44}	1.067_{33}	0.06662_{201}	2
119	41.8	75.2	0.3628	1.3351	0.9094_{272}	14.57_{43}	1.100_{34}	0.06863_{211}	2
120	41.9	75.3	0.3654	1.3299	0.8822_{256}	14.14_{42}	1.134_{33}	0.07074_{215}	2
121	41.9	75.4	0.3680	1.3247	0.8566_{251}	13.72_{40}	1.167_{36}	0.07289_{219}	2
122	42.0	75.6	0.3705	1.3195	0.8315_{242}	13.32_{39}	1.203_{36}	0.07508_{226}	2
123	42.1	75.7	0.3731	1.3144	0.8073_{233}	12.93_{37}	1.239_{37}	0.07734_{228}	2
124	42.2	75.9	0.3756	1.3093	0.7840_{225}	12.56_{37}	1.276_{37}	0.07962_{234}	2
125	42.3	76.0	0.3782	1.3042	0.7615_{216}	12.19_{34}	1.313_{38}	0.08196_{243}	2
126	42.3	76.1	0.3807	1.2992	0.7399_{211}	11.85_{34}	1.351_{40}	0.08439_{249}	2
127	42.4	76.3	0.3833	1.2942	0.7188_{202}	11.51_{32}	1.391_{40}	0.08688_{249}	2
128	42.5	76.4	0.3858	1.2892	0.6986_{195}	11.19_{31}	1.431_{42}	0.08937_{254}	2
129	42.6	76.6	0.3884	1.2842	0.6791_{187}	10.88_{31}	1.473_{41}	0.09191_{270}	2
130	42.6	76.7	0.3909	1.2792	0.6604_{183}	10.57_{28}	1.514_{43}	0.09461_{257}	2
131	42.7	76.8	0.3934	1.2743	0.6421_{177}	10.29_{29}	1.557_{45}	0.09718_{282}	2
132	42.8	77.0	0.3959	1.2694	0.6244_{171}	10.00_{272}	1.602_{45}	0.1000_{28}	2
133	42.9	77.1	0.3985	1.2645	0.6073_{166}	9.728_{266}	1.647_{46}	0.1028_{29}	2
134	43.0	77.3	0.4010	1.2596	0.5907_{160}	9.462_{258}	1.693_{47}	0.1057_{29}	2
135	43.0	77.4	0.4035	1.2547	0.5747_{155}	9.204_{244}	1.740_{48}	0.1086_{30}	2
136	43.1	77.5	0.4060	1.2499	0.5592_{150}	8.957_{240}	1.788_{50}	0.1116_{31}	2
137	43.2	77.7	0.4085	1.2451	0.5442_{144}	8.717_{230}	1.838_{50}	0.1147_{31}	2
138	43.3	77.8	0.4110	1.2403	0.5298_{140}	8.487_{225}	1.888_{51}	0.1178_{32}	2
139	43.3	78.0	0.4135	1.2356	0.5158_{137}	8.262_{219}	1.939_{53}	0.1210_{33}	2
140	43.4	78.1	0.4160	1.2309	0.5021_{130}	8.043_{209}	1.992_{53}	0.1243_{33}	2
141	43.5	78.2	0.4185	1.2262	0.4891_{127}	7.834_{203}	2.045_{54}	0.1276_{34}	2
142	43.6	78.3	0.4209	1.2215	0.4764_{124}	7.631_{198}	2.099_{56}	0.1310_{35}	2
143	43.6	78.5	0.4234	1.2168	0.4640_{119}	7.433_{191}	2.155_{57}	0.1345_{36}	2
144	43.7	78.6	0.4259	1.2121	0.4521_{116}	7.242_{186}	2.212_{58}	0.1381_{36}	2
145	43.8	78.7	0.4283	1.2075	0.4405_{112}	7.056_{179}	2.270_{59}	0.1417_{37}	2
146	43.9	78.8	0.4307	1.2029	0.4293_{108}	6.877_{173}	2.329_{60}	0.1454_{38}	2
147	44.0	79.0	0.4332	1.1983	0.4185_{105}	6.704_{168}	2.389_{62}	0.1492_{38}	2
148	44.0	79.1	0.4356	1.1937	0.4080_{102}	6.536_{164}	2.451_{63}	0.1530_{39}	2
149	44.1	79.3	0.4380	1.1892	0.3978_{98}	6.372_{159}	2.514_{63}	0.1569_{40}	3

Temperature Degrees Centigrade. t	Millimeters of Mercury. p	Diff.	Kilograms per Square Centimeter. p	Diff.	Pounds per Square Inch. p	Diff.	Calories. q	B.T.U. q	Calories. r	B.T.U. r	Calories. ρ	B.T.U. ρ	Temperature Degrees F. t
151	3679.1	993	5.0023	1350	71.15	1.92	152.1	273.8	500.6	900.9	456.3	821.4	**303.8**
152	3778.4	1014	5.1373	1378	73.07	1.96	153.1	275.6	499.8	899.6	455.5	820.0	**305.6**
153	3879.8	1035	5.2751	1406	75.03	2.00	154.1	277.4	499.1	898.4	454.7	818.5	**307.4**
154	3983.3	1057	5.4157	1435	77.03	2.04	155.1	279.2	498.2	897.0	453.9	817.0	**309.2**
155	4089.0	1079	5.5592	1469	79.07	2.09	156.2	281.1	497.6	895.7	453.1	815.6	**311.0**
156	4196.9	1102	5.7061	1497	81.16	2.13	157.2	283.0	496.9	894.4	452.4	814.1	**312.8**
157	4307.1	1124	5.8558	1526	83.29	2.17	158.2	284.8	496.1	893.0	451.5	812.7	**314.6**
158	4419.5	1148	6.0084	1561	85.46	2.22	159.3	286.7	495.4	891.8	450.7	811.3	**316.4**
159	4534.3	1171	6.1645	1596	87.68	2.27	160.3	288.5	494.7	890.4	449.9	809.8	**318.2**
160	4651.4	1195	6.3241	1624	89.95	2.31	161.3	290.4	494.0	889.1	449.1	808.3	**320.0**
161	4770.9	1218	6.4865	1659	92.26	2.36	162.3	292.2	493.2	887.8	448.2	806.9	**321.8**
162	4892.7	1243	6.6524	1688	94.62	2.40	163.4	294.1	492.5	886.6	447.5	805.5	**323.6**
163	5017	127	6.8212	1722	97.02	2.45	164.4	295.9	491.8	885.2	446.8	804.1	**325.4**
164	5144	129	6.9934	1758	99.47	2.50	165.4	297.7	491.0	883.9	445.9	802.6	**327.2**
165	5273	132	7.1692	1793	101.97	2.55	166.5	299.6	490.3	882.7	445.1	801.3	**329.0**
166	5405	134	7.3485	1821	104.52	2.59	167.5	301.5	489.6	881.4	444.3	799.8	**330.8**
167	5539	137	7.5306	1863	107.11	2.65	168.5	303.3	488.9	880.1	443.6	798.5	**332.6**
168	5676	140	7.7169	1905	109.76	2.71	169.5	305.1	488.1	878.8	442.8	797.0	**334.4**
169	5816	143	7.9074	1933	112.47	2.75	170.6	307.0	487.4	877.4	442.0	795.6	**336.2**
170	5959	145	8.1007	1983	115.22	2.82	171.6	308.9	486.8	876.1	441.2	794.1	**338.0**
171	6104	147	8.2990	1997	118.04	2.84	172.6	310.7	486.1	874.9	440.4	792.8	**339.8**
172	6251	151	8.4987	2053	120.88	2.92	173.7	312.6	485.3	873.6	439.6	791.3	**341.6**
173	6402	153	8.7040	2081	123.80	2.96	174.7	314.5	484.6	872.3	438.9	790.0	**343.4**
174	6555	157	8.9121	2130	126.76	3.03	175.7	316.3	483.8	870.9	438.1	788.4	**345.2**
175	6712	159	9.1251	2166	129.79	3.08	176.8	318.2	483.1	869.6	437.2	787.0	**347.0**
176	6871	162	9.3417	2200	132.87	3.13	177.8	320.0	482.4	868.3	436.5	785.6	**348.8**
177	7033	165	9.5617	2243	136.00	3.19	178.8	321.8	481.6	867.0	435.7	784.2	**350.6**
178	7198	168	9.7860	228	139.19	3.25	179.9	323.7	480.9	865.7	435.0	782.8	**352.4**
179	7366	171	10.014	233	142.44	3.31	180.9	325.6	480.2	864.4	434.1	781.4	**354.2**
180	7537	175	10.247	238	145.75	3.38	181.9	327.5	479.5	863.0	433.4	779.9	**356.0**
181	7712	177	10.485	241	149.13	3.43	183.0	329.3	478.7	861.7	432.5	778.5	**357.8**
182	7889	181	10.726	246	152.56	3.50	184.0	331.2	478.0	860.4	431.8	777.1	**359.6**
183	8070	183	10.972	249	156.06	3.54	185.0	333.0	477.2	859.1	430.9	775.7	**361.4**
184	8253	187	11.221	255	159.60	3.62	186.1	334.9	476.5	857.8	430.2	774.3	**363.2**
185	8440	191	11.476	259	163.22	3.69	187.1	336.8	475.8	856.5	429.3	772.9	**365.0**
186	8631	193	11.735	262	166.91	3.73	188.1	338.6	475.1	855.2	428.6	771.5	**366.8**
187	8824	197	11.997	268	170.64	3.81	189.2	340.5	474.3	853.8	427.7	770.0	**368.6**
188	9021	201	12.265	273	174.45	3.89	190.2	342.4	473.6	852.6	427.0	768.7	**370.4**
189	9222	204	12.538	277	178.34	3.93	191.2	344.2	492.9	851.2	426.3	767.2	**372.2**
190	9426	207	12.815	282	182.27	4.01	192.3	346.1	472.2	849.9	425.5	765.8	**374.0**

Temperatur[e] Degrees [Centi]grade. t	[Inter]nal Work. Calories. Apu	B.T.U. Apu	Entropy of Liquid. θ	Entropy o[f] Vaporiza[tion] $\frac{r}{T}$	Cubic Meters per Kilo. s	Cubic Feet per Pound. s	Weight, in Kilo-grams, of One Cubic Meter. γ	Weight, in Pounds, of One Cubic Foot. γ
151	44.3	79.5	0.4429	1.1802	0.3783_{93}	6.060_{149}	2.643_{67}	0.1650_{42}
152	44.3	79.7	0.4453	1.1757	0.3690_{90}	5.911_{144}	2.710_{68}	0.1692_{42}
153	44.4	79.8	0.4477	1.1713	0.3600_{88}	5.767_{141}	2.778_{69}	0.1734_{43}
154	44.5	80.0	0.4501	1.1769	0.3512_{85}	5.626_{136}	2.847_{71}	0.1777_{44}
155	44.6	80.1	0.4525	1.1625	0.3427_{82}	5.490_{132}	2.918_{72}	0.1821_{45}
156	44.6	80.2	0.4549	1.1681	0.3345_{80}	5.358_{128}	2.990_{73}	0.1866_{46}
157	44.7	80.4	0.4573	1.1637	0.3265_{78}	5.230_{125}	3.063_{75}	0.1912_{47}
158	44.8	80.5	0.4596	1.1593	0.3187_{76}	5.105_{122}	3.138_{76}	0.1959_{48}
159	44.8	80.7	0.4620	1.1560	0.3111_{73}	4.983_{116}	3.214_{78}	0.0071_{48}
160	44.9	80.8	0.4644	1.1407	0.3038_{71}	4.867_{114}	3.292_{78}	0.2055_{49}
161	45.0	80.9	0.4668	1.1364	0.2967_{69}	4.753_{111}	3.370_{81}	0.2104_{50}
162	45.1	81.0	0.4692	1.1321	0.2898_{67}	4.642_{107}	3.451_{81}	0.2154_{51}
163	45.1	81.2	0.4715	1.1278	0.2831_{66}	4.535_{106}	3.532_{85}	0.2205_{53}
164	45.2	81.3	0.4739	1.1236	0.2765_{63}	4.429_{100}	3.617_{84}	0.2258_{52}
165	45.3	81.4	0.4763	1.1194	0.2702_{62}	4.329_{100}	3.701_{87}	0.2310_{55}
166	45.3	81.5	0.4786	1.1152	0.2640_{60}	4.229_{96}	3.788_{88}	0.2365_{55}
167	45.4	81.6	0.4810	1.1110	0.2580_{58}	4.133_{93}	3.876_{89}	0.2420_{55}
168	45.4	81.8	0.4833	1.1068	0.2522_{57}	4.040_{91}	3.965_{92}	0.2475_{57}
169	45.5	81.9	0.4857	1.1027	0.2465_{55}	3.949_{88}	4.057_{92}	0.2532_{58}
170	45.6	82.0	0.4880	1.0986	0.2410_{53}	3.861_{85}	4.149_{94}	0.2590_{58}
171	45.7	82.1	0.4903	1.0945	0.2357_{52}	3.776_{84}	4.243_{95}	0.2648_{61}
172	45.7	82.2	0.4926	1.0904	0.2305_{51}	3.692_{81}	4.338_{101}	0.2709_{60}
173	45.8	82.4	0.4949	1.0863	0.2254_{50}	3.611_{80}	4.437_{100}	0.2769_{64}
174	45.8	82.5	0.4972	1.0823	0.2204_{48}	3.531_{76}	4.537_{101}	0.2833_{62}
175	45.9	82.6	0.4995	1.0783	0.2156_{47}	3.455_{76}	4.638_{104}	0.2895_{65}
176	46.0	82.7	0.5018	1.0743	0.2109_{45}	3.379_{73}	4.742_{103}	0.2960_{65}
177	46.0	82.8	0.5041	1.0703	0.2064_{44}	3.306_{70}	4.845_{105}	0.3025_{67}
178	46.1	82.9	0.5064	1.0663	0.2020_{44}	3.236_{71}	4.950_{111}	0.3092_{68}
179	46.2	83.0	0.5087	1.0623	0.1976_{42}	3.165_{67}	5.061_{110}	0.3160_{68}
180	46.2	83.1	0.5110	1.0583	0.1934_{41}	3.098_{66}	5.171_{112}	0.3228_{70}
181	46.3	83.2	0.5123	1.0544	0.1893_{40}	3.032_{64}	5.283_{114}	0.3298_{71}
182	46.3	83.3	0.5146	1.0505	0.1853_{39}	2.968_{62}	5.397_{116}	0.3369_{72}
183	46.4	83.4	0.5168	1.0466	0.1814_{38}	2.906_{61}	5.513_{118}	0.3441_{74}
184	46.4	83.5	0.5191	1.0427	0.1776_{37}	2.845_{60}	5.631_{119}	0.3515_{76}
185	46.5	83.6	0.5224	1.0389	0.1739_{36}	2.785_{57}	5.750_{122}	0.3591_{75}
186	46.5	83.7	0.5246	1.0350	0.1703_{36}	2.728_{58}	5.872_{127}	0.3666_{79}
187	46.6	83.8	0.5269	1.0311	0.1667_{34}	2.670_{54}	5.999_{125}	0.3745_{78}
188	46.6	83.9	0.5291	1.0272	0.1633_{33}	2.616_{53}	6.124_{126}	0.3823_{79}
189	46.7	84.0	0.5314	1.0234	0.1600_{33}	2.563_{53}	6.250_{132}	0.3902_{82}
190	46.8	84.1	0.5336	1.0196	0.1567_{32}	2.510_{51}	5.382_{133}	0.3984_{83}

Temperature, Degrees Centigrade.	Pressure						Heat of the Liquid		Heat of Vaporization.		Heat Equivalent of Internal Work.		Temperature, Degrees Fahr.
	Millimeters of Mercury.		Kilograms per Square Centimeter.		Pounds per Square Inch.		Calories.	B.T.U.	Calories.	B.T.U.	Calories.	B.T.U.	
t	p		p		p		q	q	r	r	ρ	ρ	t
191	9633	211	13.097	287	186.28	4.08	193.3	347.9	471.5	848.6	424.8	764.4	**375.8**
192	9844	214	13.384	291	190.36	4.14	194.4	349.8	470.7	847.1	423.9	763.0	**377.6**
193	10058	218	13.675	297	194.50	4.22	195.4	351.7	470.0	845.9	423.2	761.6	**379.4**
194	10276	222	13.972	301	198.72	4.29	196.4	353.5	469.2	844.7	422.4	760.3	**381.2**
195	10498	226	14.273	308	203.01	4.37	197.5	355.4	468.5	843.4	421.6	758.9	**383.0**
196	10724	229	14.581	311	207.38	4.43	198.5	357.3	467.8	842.0	420.8	757.4	**384.8**
197	10953	233	14.892	317	211.81	4.50	199.5	359.2	467.1	840.7	420.0	756.1	**386.6**
198	11186	238	15.209	324	216.31	4.61	200.6	361.1	466.3	839.4	419.2	754.6	**388.4**
199	11424	240	15.533	326	220.92	4.64	201.6	362.9	465.6	838.0	418.4	753.2	**390.2**
200	11664	245	15.859	334	255.56	4.74	202.7	364.8	464.8	836.7	417.6	751.8	**392.0**
201	11909	249	16.193	337	230.30	4.81	203.7	366.7	464.1	835.5	417.0	750.5	**393.8**
202	12158	253	16.530	345	235.11	4.89	204.7	368.5	463.4	834.1	416.3	749.1	**395.6**
203	12411	257	16.875	348	240.00	4.97	205.8	370.4	462.6	832.7	415.4	747.7	**397.4**
204	12668	262	17.223	357	244.97	5.06	206.8	372.3	461.9	831.4	414.7	746.4	**399.2**
205	12930	265	17.580	359	250.03	5.12	207.9	374.1	461.1	830.1	413.8	745.0	**401.0**
206	13195	270	17.939	368	255.15	5.22	208.9	376.0	460.4	828.8	413.1	743.6	**402.8**
207	13465	274	18.307	372	260.37	5.30	210.0	377.9	459.6	827.5	412.3	742.2	**404.6**
208	13739	279	18.679	379	265.67	5.40	211.0	379.8	458.9	826.1	411.6	740.9	**406.4**
209	14018	283	19.058	384	271.07	5.41	212.0	381.6	458.1	824.8	410.7	739.5	**408.2**
210	14301	287	19.442	390	276.54	5.55	213.1	383.5	457.5	823.5	410.1	738.1	**410.0**
211	14588	292	19.832	398	282.09	5.64	214.1	385.4	456.7	822.1	409.3	736.7	**411.8**
212	14880	297	20.230	404	287.73	5.75	215.2	387.3	456.0	820.8	408.6	735.3	**413.6**
213	15177	301	20.634	409	293.48	5.82	216.2	389.2	455.3	819.5	407.9	734.1	**415.4**
214	15478	307	21.043	418	299.30	5.94	217.3	391.1	454.5	818.2	407.0	732.7	**417.2**
215	15785	311	21.461	423	305.24	6.01	218.3	392.9	453.8	816.8	406.3	731.3	**419.0**
216	16096	315	21.884	428	311.25	6.09	219.3	394.8	453.1	815.4	405.5	729.9	**420.8**
217	16411	321	22.312	436	317.34	6.21	220.4	396.7	452.3	814.1	404.8	728.5	**422.6**
218	16732	326	22.748	443	323.55	6.30	221.4	398.5	451.6	812.7	404.0	727.2	**424.4**
219	17058	331	23.191	451	329.85	6.41	222.5	400.4	450.8	811.4	403.3	725.8	**426.2**
220	17389		23.642		336.26		223.5	402.3	450.1	810.1	402.5	724.6	**428.0**

SATURATED STEAM—TABLE III.

Temperature, Degrees Centigrade.	Heat Equivalent of External Work.		Entropy of the Liquid.	Entropy of Vaporization.	Specific Volume.		Density.	
	Calories.	B.T.U.			Cubic Meters per Kilo.	Cubic Feet per Pound.	Weight, in Kilograms, of One Cubic Meter.	Weight, in Pounds, of One
t	Apu	Apu	θ	$\frac{r}{T}$	s	s	γ	γ
191	46.8	84.2	0.5358	1.0158	0.1535$_{31}$	2.459$_{50}$	6.515$_{134}$	0.4067
192	46.9	84.3	0.5381	1.0121	0.1504$_{30}$	2.409$_{48}$	6.649$_{135}$	0.4151
193	46.9	84.3	0.5303	1.0084	0.1474$_{30}$	2.361$_{48}$	6.784$_{141}$	0.4235
194	46.9	84.4	0.5326	1.0047	0.1444$_{29}$	2.313$_{46}$	6.925$_{142}$	0.4323
195	47.0	84.5	0.5448	1.0010	0.1415$_{28}$	2.267$_{45}$	7.067$_{143}$	0.4411
196	47.0	84.6	0.5470	0.9973	0.1387$_{27}$	2.222$_{43}$	7.210$_{143}$	0.4500
197	47.1	84.7	0.5492	0.9936	0.1360$_{27}$	2.179$_{44}$	7.353$_{149}$	0.4589
198	47.1	84.7	0.5514	0.9899	0.1333$_{27}$	2.135$_{43}$	7.502$_{155}$	0.4684
199	47.2	84.8	0.5536	0.9862	0.1306$_{26}$	2.092$_{41}$	7.657$_{156}$	0.4780
200	47.2	84.9	0.5558	0.9826	0.1280$_{26}$	2.051$_{42}$	7.813$_{161}$	0.4877
201	47.2	84.9	0.5580	0.9790	0.1254$_{24}$	2.009$_{39}$	7.974$_{156}$	0.4978
202	47.3	85.0	0.5602	0.9754	0.1230$_{24}$	1.970$_{38}$	8.130$_{162}$	0.507
203	47.3	85.0	0.5624	0.9718	0.1206$_{23}$	1.932$_{37}$	8.292$_{161}$	0.517
204	47.3	85.1	0.5646	0.9682	0.1183$_{23}$	1.895$_{37}$	8.453$_{168}$	0.527
205	47.4	85.1	0.5668	0.9646	0.1160$_{23}$	1.858$_{37}$	8.621$_{174}$	0.538
206	47.4	85.2	0.5690	0.9610	0.1137$_{22}$	1.821$_{35}$	8.795$_{174}$	0.549
207	47.4	85.2	0.5712	0.9575	0.1115$_{21}$	1.786$_{34}$	8.969$_{172}$	0.559
208	47.4	85.3	0.5733	0.9540	0.1094$_{21}$	1.752$_{33}$	9.141$_{179}$	0.570
209	47.5	85.3	0.5755	0.9505	0.1073$_{21}$	1.719$_{33}$	9.320$_{186}$	0.581
210	47.5	85.4	0.5777	0.9470	0.1052$_{20}$	1.686$_{33}$	9.506$_{184}$	0.593
211	47.5	85.4	0.5799	0.9435	0.1032$_{19}$	1.653$_{30}$	9.690$_{182}$	0.605
212	47.5	85.4	0.5820	0.9400	0.1013$_{19}$	1.622$_{30}$	9.872$_{188}$	0.616
213	47.5	85.5	0.5842	0.9366	0.0994$_{19}$	1.592$_{30}$	10.06$_{20}$	0.628
214	47.6	85.5	0.5863	0.9332	0.0975$_{19}$	1.562$_{30}$	10.26$_{20}$	0.640
215	47.6	85.5	0.5885	0.9298	0.0956$_{18}$	1.532$_{29}$	10.46$_{20}$	0.652
216	47.6	85.5	0.5906	0.9264	0.0938$_{18}$	1.503$_{29}$	10.66$_{21}$	0.665
217	47.6	85.5	0.5927	0.9230	0.0920$_{17}$	1.474$_{28}$	10.87$_{20}$	0.678
218	47.6	85.6	0.5948	0.9196	0.0903$_{17}$	1.446$_{27}$	11.07$_{22}$	0.691
219	47.6	85.6	0.5969	0.9162	0.0886$_{17}$	1.419$_{27}$	11.29$_{23}$	0.704
220	47.6	85.6	0.5991	0.9129	0.0869	1.392	11.51	0.718

TABLE IV.

SATURATED VAPOR OF ETHER.

FRENCH UNITS.

Temperature, Degrees Centigrade. t	Pressure, Millimeters of Mercury. p	Heat of the Liquid. q	Total Heat. H	Heat of Vaporization. r	Heat equivalent of Internal Work. ρ	Heat equivalent of External Work. Apu	Entropy of the Liquid. θ	Specific Volume. s	Density. Weight, in Kilos, of One Cubic Meter. γ	Temperature, Degrees Centigrade. t
0	184.39	0.00	94.00	94.00	86.45	7.55	0.0000	1.278	0.728	0
10	286.83	5.32	98.44	93.12	85.37	7.75	0.01909	0.8440	1.185	10
20	432.78	10.70	102.78	92.08	84.13	7.95	0.03772	0.5741	1.742	20
30	634.80	16.14	107.00	90.86	82.72	8.14	0.05593	0.4013	2.492	30
40	907.04	21.63	111.11	89.48	81.15	8.33	0.07374	0.2877	3.746	40
50	1264.8	27.19	115.11	87.92	79.41	8.51	0.09117	0.2108	4.744	50
60	1725.0	32.80	119.00	86.20	77.53	8.67	0.1083	0.1580	6.329	60
70	2304.9	38.48	122.78	84.30	75.49	8.81	0.1250	0.1203	8.313	70
80	3022.8	44.21	126.44	82.23	73.32	8.91	0.1415	0.0932	10.73	80
90	3898.3	50.00	130.00	80.00	71.03	8.97	0.1576	0.0731	13.68	90
100	4953.3	55.86	133.44	77.58	68.62	8.96	0.1735	0.0577	17.33	100
110	6214.6	61.77	136.78	75.01	66.13	8.88	0.1891	0.0459	21.79	110
120	7719.2	67.74	140.00	72.26	63.57	8.69	0.2045	0.0364	27.47	120

TABLE V.

SATURATED VAPOR OF ALCOHOL.

FRENCH UNITS.

Temperature, Degrees Centigrade. t	Pressure, Millimeters of Mercury. p	Heat of the Liquid. q	Total Heat. H	Heat of Vaporization. r	Heat equivalent of Internal Work. ρ	Heat equivalent of External Work. Apu	Entropy of the Liquid. θ	Specific Volume. s	Density. Weight, in Kilos, of One Cubic Meter. γ	Temperature, Degrees Centigrade. t
0	12.70	0.00	236.5	236.50	223.38	13.12	0.0000	32.21	0.03105	0
10	24.23	5.59	244.4	238.81	225.29	13.52	0.01996	17.39	0.05750	10
20	44.46	11.42	252.0	240.58	226.56	14.02	0.04003	9.847	0.1016	20
30	78.52	17.49	258.0	240.51	226.03	14.48	0.06029	5.753	0.1738	30
40	133.69	23.71	262.0	238.29	223.44	14.85	0.08073	3.465	0.2886	40
50	219.90	30.21	264.0	233.79	218.59	15.10	0.1014	2.143	0.4666	50
60	350.21	37.37	265.0	227.63	212.38	15.25	0.1223	1.359	0.7358	60
70	541.15	44.58	265.2	220.62	205.28	15.34	0.1435	0.8855	1.129	70
80	812.91	52.11	265.2	213.09	197.69	15.40	0.1650	0.5921	1.689	80
90	1189.3	59.97	266.0	206.03	190.54	15.49	0.1868	0.4073	2.455	90
100	1697.6	68.18	267.3	199.12	183.54	15.58	0.2090	0.2874	3.479	100
110	2367.6	76.74	269.6	192.86	177.15	15.71	0.2315	0.2083	4.801	110
120	3231.7	85.67	272.5	186.83	170.97	15.86	0.2544	0.1544	6.477	120
130	4323.0	94.98	276.0	181.02	164.99	16.03	0.2776	0.1170	8.547	130
140	5674.6	104.70	280.5	175.80	159.55	16.25	0.3013	0.0905	11.05	140
150	7318.4	114.82	285.3	170.48	154.03	16.45	0.3254	0.0714	14.01	150

TABLE VI.

SATURATED VAPOR OF CHLOROFORM.

FRENCH UNITS.

Temperature, Degrees Centigrade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density. Weight, in Kilos, of One Cubic Meter.	Temperature, Degrees Centigrade.
t	p	q	H	r	ρ	Apu	θ	s	γ	t
0	59.72	0.00	67.00	67.00	62.45	4.55	0.00000	2.377	0.4207	0
10	100.47	2.33	68.38	66.04	61.29	4.75	0.00836	1.475	0.6780	10
20	160.47	4.67	69.75	65.08	60.14	4.94	0.01646	0.9601	1.042	20
30	247.51	7.02	71.12	64.10	59.00	5.10	0.02432	0.6437	1.554	30
40	369.26	9.37	72.50	63.13	57.87	5.26	0.03196	0.4449	2.248	40
50	535.05	11.74	73.87	62.13	56.73	5.40	0.03940	0.3155	3.170	50
60	755.44	14.12	75.25	61.13	55.60	5.53	0.04664	0.2291	4.356	60
70	1042.1	16.51	76.62	60.11	54.45	5.66	0.05369	0.1700	5.88	70
80	1407.6	18.91	78.00	59.09	53.31	5.78	0.06057	0.1286	7.78	80
90	1865.2	21.32	79.37	58.05	52.16	5.89	0.06729	0.0991	10.09	90
100	2428.5	23.74	80.75	57.01	51.01	6.00	0.07386	0.0777	12.87	100
110	3111.0	26.17	82.12	55.95	49.84	6.11	0.08027	0.0618	16.18	110
120	3925.7	28.61	83.50	54.89	48.67	6.22	0.08655	0.0500	20.00	120
130	4885.1	31.06	84.87	53.81	47.48	6.33	0.09270	0.0410	24.39	130
140	6000.2	33.52	86.25	52.73	46.30	6.43	0.09872	0.0340	29.4	140
150	7280.6	35.99	87.62	51.63	45.10	6.53	0.10462	0.0286	35.0	150
160	8734.2	38.47	89.00	50.53	43.90	6.63	0.11041	0.0243	41.2	160

TABLE VII.

SATURATED VAPOR OF CARBON BISULPHIDE.

FRENCH UNITS.

Temperature, Degrees Centigrade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Dens
									Weight, in Kilos, of
t	p	q	H	r	ρ	Apu	θ	s	γ
0	127.91	0.00	90.00	90.00	82.76	7.24	0.00000	1.766	0.
10	198.46	2.36	91.42	89.06	81.58	7.48	0.00847	1.177	0.
20	298.03	4.74	92.76	88.02	80.31	7.71	0.01670	0.8071	1.
30	434.62	7.13	94.01	86.88	78.97	7.91	0.02472	0.5684	1.
40	617.53	9.54	95.18	85.64	77.54	8.10	0.03252	0.4098	2.
50	857.07	11.96	96.27	84.31	76.04	8.27	0.04013	0.3017	3.
60	1164.5	14.41	97.28	82.87	74.45	8.42	0.04756	0.2264	4.
70	1552.1	16.86	98.20	81.34	72.78	8.56	0.05482	0.1726	5.
80	2032.5	19.34	99.04	79.70	71.03	8.67	0.06192	0.1338	7.
90	2619.1	21.83	99.80	77.97	69.20	8.77	0.06886	0.1052	9.
100	3325.2	24.34	100.48	76.14	67.29	8.85	0.07566	0.0837	11.
110	4164.1	26.86	101.07	74.21	65.31	8.90	0.08233	0.0674	14.
120	5148.8	29.40	101.58	72.18	63.24	8.94	0.08886	0.0549	18.
130	6291.6	31.96	102.01	70.05	61.09	8.96	0.09527	0.0452	22.
140	7604.0	34.53	102.36	67.83	58.88	8.95	0.10157	0.0375	26.
150	9095.9	37.12	102.62	65.50	56.58	8.92	0.10775	0.0314	31.

TABLE VIII.

SATURATED VAPOR OF CARBON TETRACHLORIDE.

FRENCH UNITS.

Temperature, Degrees Centigrade. t	Pressure, Millimeters of Mercury. p	Heat of the Liquid. q	Total Heat. H	Heat of Vaporization. r	Heat equivalent of Internal Work. ρ	Heat equivalent of External Work. Apu	Entropy of the Liquid. θ	Specific Volume. s	Density. Weight, in Kilos, of One Cubic Meter. γ	Temperature, Degrees Centigrade. t
0	32.95	0.00	52.00	52.00	48.54	3.46	0.00000	3.272	0.3056	0
10	55.97	1.99	53.44	51.45	47.85	3.60	0.00714	2.005	0.4987	10
20	90.99	3.99	54.86	50.87	47.13	3.74	0.01409	1.283	0.7794	20
30	142.27	6.02	56.23	50.21	46.33	3.88	0.02087	0.8510	1.175	30
40	214.81	8.06	57.58	49.52	45.51	4.01	0.02749	0.5831	1.715	40
50	314.38	10.12	58.88	48.76	44.62	4.14	0.03396	0.4109	2.434	50
60	447.43	12.20	60.16	47.96	43.69	4.25	0.04028	0.2969	3.368	60
70	621.15	14.30	61.40	47.10	42.75	4.35	0.04648	0.2192	4.562	70
80	843.29	16.42	62.60	46.18	41.74	4.44	0.04255	0.1650	6.061	80
90	1122.3	18.55	63.77	45.22	40.50	4.72	0.05849	0.1263	7.92	90
100	1467.1	20.70	64.90	44.20	39.62	4.58	0.06433	0.0980	10.20	100
110	1887.4	22.87	66.01	43.14	38.52	4.62	0.07006	0.0770	12.99	110
120	2393.7	25.06	67.07	42.01	37.36	4.65	0.07569	0.0611	16.37	120
130	2996.9	27.27	68.10	40.83	36.18	4.65	0.08122	0.0490	20.41	130
140	3709.0	29.49	69.10	39.61	34.95	4.63	0.08666	0.0395	25.3	140
150	4543.1	31.73	70.07	38.34	33.75	4.59	0.09201	0.0321	31.2	150
160	5513.1	34.00	71.00	37.00	32.47	4.53	0.09729	0.0262	38.2	160

Table IX.

SATURATED VAPOR OF ACETON.

FRENCH UNITS.

Temperature, Degrees Centigrade. t	Pressure, Millimeters of Mercury. p	Heat of the Liquid. q	Total Heat. H	Heat of Vaporization. r	Heat equivalent of Internal Work. ρ	Heat equivalent of External Work. Apu	Entropy of the Liquid. θ	Specific Volume. s	Density. Weight, in Kilos, of One Cubic Meter. γ	Temperature
0	63.33	0.00	140.50	140.50	131.82	8.68	0.00000	4.275	0.2339	
10	110.32	5.10	144.11	139.01	129.51	9.50	0.01832	2.686	0.3723	
20	180.08	10.29	147.62	137.33	127.16	10.17	0.03627	1.758	0.5688	
30	280.05	15.55	151.03	135.48	124.83	10.65	0.05389	1.187	0.8425	
40	419.35	20.89	154.33	133.44	121.39	11.05	0.07119	0.8227	1.215	
50	608.81	26.31	157.53	131.22	119.86	11.36	0.08820	0.5830	1.715	
60	860.96	31.81	160.63	128.82	117.22	11.60	0.1049	0.4215	2.372	
70	1189.9	37.39	163.62	126.23	114.43	11.80	0.1214	0.3106	3.220	
80	1611.1	43.05	166.51	123.46	111.49	11.97	0.1376	0.2328	4.296	
90	2140.8	48.79	169.30	120.51	108.41	12.10	0.1536	0.1773	5.640	
100	2796.2	54.61	171.98	117.37	105.17	12.20	0.1694	0.1372	7.289	
110	3594.3	60.50	174.56	114.06	101.78	12.28	0.1850	0.1076	9.294	
120	4552.0	66.48	177.04	110.56	98.23	12.33	0.2004	0.0856	11.68	
130	5684.9	72.54	179.42	106.88	94.53	12.35	0.2156	0.0689	14.51	
140	7007.6	78.67	181.69	103.02	90.67	12.35	0.2306	0.0561	17.83	

Table X.

SATURATED VAPOR OF AMMONIA.

ENGLISH UNITS.

Degrees Fahrenheit. t	Pressure, Pounds per Square Inch. p	Heat of the Liquid. q	Total Heat. H	Heat of Vaporization. r	Heat equivalent of Internal Work. ρ	Heat equivalent of External Work. Apu	Entropy of the Liquid. θ	Specific Volume. s	Density. Weight, in pounds, of One Cubic Foot. γ	Temperature, Degrees Fahrenheit. t
−40	9.93	−79	519	598	550	48	−0.1737	26.1	0.0383	−40
−35	11.53	−74	520	594	546	48	−0.1607	22.6	0.0442	−35
−30	13.36	−68	522	590	541	49	−0.1482	19.7	0.0507	−30
−25	15.40	−63	523	586	537	49	−0.1354	17.3	0.0580	−25
−20	17.70	−57	525	582	532	50	−0.1229	15.2	0.0660	−20
−15	20.25	−52	526	578	528	50	−0.1102	13.3	0.0750	−15
−10	23.10	−46	528	574	524	50	−0.0982	11.8	0.0848	−10
−5	26.25	−41	529	570	519	51	−0.0859	10.5	0.0956	−5
0	29.74	−35	531	566	515	51	−0.0738	9.32	0.108	0
5	33.58	−30	532	562	511	51	−0.0619	8.31	0.120	5
10	37.80	−24	534	558	506	52	−0.0501	7.44	0.134	10
15	42.43	−19	535	554	502	52	−0.0386	6.68	0.150	15
20	47.49	−13	537	550	497	53	−0.0271	6.02	0.166	20
25	53.01	−8	538	546	493	53	−0.0157	5.43	0.184	25
30	59.01	−2	540	542	489	53	−0.0044	4.92	0.203	30
35	65.53	3	541	538	484	54	0.0067	4.46	0.225	35
40	72.59	9	543	534	480	54	0.0177	4.06	0.247	40
45	80.21	14	544	530	475	55	0.0287	3.70	0.270	45
50	88.44	20	546	526	471	55	0.0395	3.38	0.296	50
55	97.30	25	547	522	467	55	0.0502	3.09	0.323	55
60	106.82	31	549	518	462	56	0.0608	2.84	0.352	60
65	117.04	36	550	514	458	56	0.0713	2.61	0.383	65
70	127.98	42	552	510	454	56	0.0817	2.40	0.416	70
75	139.67	47	553	506	449	57	0.0921	2.22	0.451	75
80	152.15	53	555	502	445	57	0.1023	2.05	0.488	80
85	165.47	58	556	498	441	57	0.1124	1.90	0.527	85
90	179.64	64	558	494	436	58	0.1224	1.76	0.568	90
95	194.70	69	559	490	432	58	0.1324	1.63	0.612	95
100	210.70	75	561	486	428	58	0.1423	1.52	0.657	100

Table XI.

SATURATED VAPOR OF SULPHUR DIOXIDE.

ENGLISH UNITS.

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density. Weight, in pounds, of One Cubic Foot.
t	p	q	H	r	ρ	Apu	θ	s	γ
−40	3.14	−29	166	195	182	13	−0.0632	23.0	0.0434
−35	3.70	−27	167	194	180	14	−0.0584	19.7	0.0507
−30	4.34	−25	168	193	179	14	−0.0539	17.0	0.0590
−25	5.07	−23	168	191	177	14	−0.0492	14.7	0.0682
−20	5.90	−21	169	190	176	14	−0.0447	12.7	0.0785
−15	6.83	−19	170	189	175	14	−0.0401	11.1	0.0901
−10	7.88	−17	170	187	173	14	−0.0357	9.73	0.103
−5	9.05	−15	171	186	172	14	−0.0312	8.56	0.117
0	10.35	−13	172	185	170	15	−0.0268	7.54	0.133
5	11.81	−11	172	183	168	15	−0.0225	6.67	0.450
10	13.41	−9	173	182	167	15	−0.0182	5.93	0.169
15	15.19	−7	174	181	166	15	−0.0140	5.29	0.189
20	17.15	−5	174	179	164	15	−0.0098	4.72	0.212
25	19.30	−3	175	178	163	15	−0.0057	4.23	0.236
30	21.66	−1	176	177	162	15	−0.0016	3.81	0.263
35	24.24	1	176	175	160	15	0.0024	3.43	0.291
40	27.06	3	177	174	158	16	0.0064	3.10	0.322
45	30.12	5	177	172	156	16	0.0104	2.81	0.356
50	33.45	7	178	171	155	16	0.0144	2.58	0.390
55	37.07	9	179	170	154	16	0.0182	2.32	0.430
60	40.98	11	179	168	152	16	0.0221	2.11	0.473
65	45.20	13	180	167	151	16	0.0259	1.94	0.516
70	49.75	15	181	166	150	16	0.0297	1.78	0.563
75	54.64	17	181	164	148	16	0.0334	1.63	0.614
80	59.90	19	182	163	146	17	0.0372	1.50	0.668
85	65.54	21	183	162	145	17	0.0409	1.38	0.725
90	71.57	23	183	160	143	17	0.0445	1.27	0.786
95	78.02	25	184	159	142	17	0.0482	1.18	0.849
100	84.90	27	185	158	141	17	0.0518	1.09	0.917

Table XII.

SPECIFIC GRAVITY AND SPECIFIC VOLUME OF LIQUIDS.

Name of Liquid.	Specific Gravity, compared with Water at 4° C.	Specific Volume. Cubic Meters per Kilo.
Alcohol, C_2H_6O	0.80625 [Mendelejeff, 1869] . .	0.001240
Ether, $C_4H_{10}O$	0.736 [Kopp, 1860]	0.001358
Chloroform	1.527 [Thorpe, 1880]	0.000655
Carbon bisulphide, CS_2	1.2922 [Thorpe, 1880]	0.000774
Carbon tetrachloride, CCl_4 . .	1.6320 [Thorpe, 1880]	0.000613
Aceton, C_3H_6O	0.81 [Zander, 1882]	0.00123
Sulphur Dioxide, SO_2	1.4336 [Andréeff, 1859]	0.0006981
Ammonia, NH_3	0.6364 [Andréeff, 1859]	0.001571

Table XIII.

VOLUME OF WATER.

Vol. at 4° C. = 1.

[Rossetti, 1871] and [Hirn, 1867].

Temperature.	Volume.	Temperature.	Volume.	Temperature.	Volume.	Temperature.	Volume.
10	1.000253	60	1.01691	110	1.0512	160	1.1018
20	1.001744	70	1.02256	120	1.0599	170	1.1139
30	1.00425	80	1.02887	130	1.0694	180	1.1268
40	1.00770	90	1.03567	140	1.0795	190	1.1403
50	1.01195	100	1.04312	150	1.0903	200	1.1544

Table XIV.

CONVERSION TABLE.

INCHES OF MERCURY AND POUNDS PER SQUARE INCH.

		1	2	3	4	5	6	7	8	9
0	0.00	0.05	0.10	0.15	0.20	0.25	0.29	0.34	0.39	0.44
1	0.49	0.54	0.59	0.64	0.69	0.74	0.79	0.84	0.88	0.93
2	0.98	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.42
3	1.47	1.52	1.57	1.62	1.67	1.72	1.77	1.82	1.87	1.91
4	1.96	2.01	2.06	2.11	2.16	2.21	2.26	2.31	2.36	2.41
5	2.46	2.51	2.55	2.60	2.65	2.70	2.75	2.80	2.85	2.90
6	2.95	3.00	3.05	3.09	3.14	3.19	3.24	3.29	3.34	3.39
7	3.44	3.49	3.54	3.59	3.63	3.68	3.73	3.78	3.83	3.88
8	3.93	3.98	4.03	4.08	4.13	4.18	4.22	4.27	4.32	4.37
9	4.42	4.47	4.52	4.57	4.62	4.67	4.72	4.76	4.81	4.86
10	4.91	4.96	5.01	5.06	5.11	5.16	5.21	5.26	5.30	5.35
11	5.40	5.45	5.50	5.55	5.60	5.65	5.70	5.75	5.80	5.85
12	5.89	5.94	5.99	6.04	6.09	6.14	6.19	6.24	6.29	6.34
13	6.39	6.43	6.48	6.53	6.58	6.63	6.68	6.73	6.78	6.83
14	6.88	6.93	6.97	7.02	7.07	7.12	7.17	7.22	7.27	7.32
15	7.37	7.42	7.47	7.52	7.56	7.61	7.66	7.71	7.76	7.81
16	7.86	7.91	7.96	8.01	8.06	8.10	8.15	8.20	8.25	8.30
17	8.35	8.40	8.45	8.50	8.55	8.60	8.64	8.69	8.74	8.79
18	8.84	8.89	8.94	8.99	9.04	9.09	9.14	9.19	9.23	9.28
19	9.33	9.38	9.43	9.48	9.53	9.58	9.63	9.68	9.73	9.77
20	9.82	9.87	9.92	9.97	10.02	10.07	10.12	10.17	10.22	10.27
21	10.32	10.37	10.41	10.46	10.51	10.56	10.61	10.66	10.71	10.76
22	10.81	10.86	10.90	10.95	11.00	11.05	11.10	11.15	11.20	11.25
23	11.30	11.35	11.40	11.44	11.49	11.54	11.59	11.64	11.69	11.74
24	11.79	11.84	11.89	11.94	11.99	12.03	12.08	12.13	12.18	12.23
25	12.28	12.33	12.38	12.43	12.48	12.53	12.57	12.62	12.67	12.72
26	12.77	12.82	12.87	12.92	12.97	13.02	13.07	13.11	13.16	13.21
27	13.26	13.31	13.36	13.41	13.46	13.51	13.56	13.61	13.66	13.70
28	13.75	13.80	13.85	13.90	13.95	14.00	14.05	14.10	14.15	14.20
29	14.24	14.29	14.34	14.39	14.44	14.49	14.54	14.59	14.64	14.69
30	14.74	14.78	14.83	14.88	14.93	14.98	15.03	15.08	15.13	15.18

Table XV.

CORRECTIVE FACTORS FOR SUPERHEATED STEAM.

Values of the factor $\frac{150,300,000}{T^3} - 0.0833.$

Temperature.		Value of Factor.	Temperature.		Value of Factor.	Temperature.		Value of Factor.
Fahr.	Abs.		Fahr.	Abs.		Fahr.	Abs.	
200	659.5	0.441	335	794.5	0.216	470	929.5	0.104
205	664.5	0.429	340	799.5	0.211	475	934.5	0.101
210	669.5	0.417	345	804.5	0.205	480	939.5	0.098
215	674.5	0.405	350	809.5	0.200	485	944.5	0.095
220	679.5	0.395	355	814.5	0.195	490	949.5	0.092
225	684.5	0.385	360	819.5	0.190	495	954.5	0.090
230	689.5	0.375	365	824.5	0.185	500	959.5	0.087
235	694.5	0.365	370	829.5	0.180	505	964.5	0.084
240	699.5	0.356	375	834.5	0.175	510	969.5	0.082
245	704.5	0.347	380	839.5	0.171	515	974.5	0.079
250	709.5	0.338	385	844.5	0.166	520	979.5	0.077
255	714.5	0.329	390	849.5	0.162	525	984.5	0.074
260	719.5	0.320	395	854.5	0.158	530	989.5	0.072
265	724.5	0.312	400	859.5	0.153	535	994.5	0.070
270	729.5	0.304	405	864.5	0.149	540	999.5	0.067
275	734.5	0.296	410	869.5	0.145	545	1004.5	0.065
280	739.5	0.288	415	874.5	0.141	550	1009.5	0.063
285	744.5	0.281	420	879.5	0.138	555	1014.5	0.061
290	749.5	0.274	425	884.5	0.134	560	1019.5	0.059
295	754.5	0.267	430	889.5	0.131	565	1024.5	0.057
300	759.5	0.260	435	894.5	0.127	570	1029.5	0.055
305	764.5	0.253	440	899.5	0.123	575	1034.5	0.053
310	769.5	0.247	445	904.5	0.120	580	1039.5	0.051
315	774.5	0.240	450	909.5	0.117	585	1044.5	0.049
320	779.5	0.234	455	914.5	0.113	590	1049.5	0.047
325	784.5	0.228	460	919.5	0.110	595	1054.5	0.045
330	789.5	0.222	465	924.5	0.107			

TEMPERATURE-ENTROPY TABLE.

THIS table gives the properties of moist and of superheated steam at each degree of temperature Fahrenheit, and for each hundredth of a unit of entropy.

At the left hand of each page are given the temperatures and the corresponding pressures of saturated steam; the lines across the tables are, therefore, constant pressure lines, and for moist steam are also constant temperature lines.

The table is divided by a broken line which corresponds roughly to the saturation line; properties to the left of that line are for moist steam and to the right are for superheated steam.

The triple-columns are headed with the entropy, and are constant entropy lines; they can be used for solving problems concerning adiabatic operations in a closed cylinder, and similar problems.

At any point in the table, determined by the entropy and the pressure (or the corresponding temperature of saturated steam), there are given three properties: —

(1) *The quality*, which for moist steam is the proportion of a pound that is steam, and for superheated steam is the number of degrees of superheating.

(2) *The heat contents*, or the number of thermal units required to change a pound of water at freezing into steam at the given pressure and with the given quality.

(3) *The specific volume* in cubic feet per pound.

For examples, solved by aid of the table, see page 30.

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
420	308.6	3	1212	1.515	17	1221	1.555	32	1230	1.596	47	1239	1.645
419	305.2	2	1211	1.526	16	1220	1.572	31	1229	1.610	46	1238	1.659
418	301.9	1	1210	1.540	15	1219	1.580	30	1228	1.625	44	1237	1.672
417	298.7	0	1209	1.555	14	1218	1.595	29	1227	1.640	43	1236	1.686
416	295.4	9996	1208.5	1.581	13	1217	1.610	28	1227	1.654	42	1235	1.701
415	292.2	9988	1207.5	1.597	12	1216	1.623	27	1226	1.669	41	1234	1.715
414	289.0	9981	1206.6	1.613	11	1215	1.638	26	1225	1.682	40	1233	1.730
413	285.9	9974	1205.7	1.629	10	1214	1.650	25	1224	1.697	39	1232	1.744
412	282.7	9965	1204.7	1.644	9	1213	1.663	24	1223	1.711	38	1231	1.759
411	279.6	9958	1203.8	1.661	8	1212	1.678	23	1222	1.726	37	1230	1.774
410	276.5	9949	1202.8	1.677	7	1212	1.695	21	1220	1.740	36	1229	1.790
409	273.5	9942	1201.9	1.694	6	1211	1.710	20	1219	1.758	35	1228	1.805
408	270.5	9934	1201.0	1.711	5	1210	1.725	19	1218	1.772	34	1227	1.820
407	267.5	9926	1200.0	1.728	4	1209	1.740	18	1217	1.788	32	1226	1.837
406	264.5	9920	1199.2	1.746	3	1208	1.755	17	1217	1.803	31	1225	1.853
405	261.6	9912	1198.2	1.763	2	1207	1.771	16	1216	1.820	30	1224	1.869
404	258.6	9904	1197.3	1.781	1	1206	1.787	15	1215	1.836	29	1223	1.886
403	255.7	9896	1196.3	1.799	0	1205	1.805	14	1214	1.853	28	1222	1.902
402	252.9	9888	1195.3	1.818	9992	1204.0	1.836	13	1213	1.869	27	1221	1.920
401	250.0	9881	1194.3	1.836	9985	1202.9	1.856	12	1212	1.885	26	1220	1.936
400	247.2	9874	1193.4	1.854	9977	1202.0	1.875	11	1211	1.902	25	1219	1.953
399	244.4	9865	1192.4	1.873	9968	1201.0	1.884	9	1209	1.920	24	1218	1.971
398	241.7	9858	1191.5	1.892	9961	1200.0	1.913	8	1208	1.938	22	1217	1.990
397	238.9	9851	1190.6	1.912	9954	1199.1	1.932	7	1208	1.946	21	1216	2.007
396	236.2	9843	1189.6	1.931	9945	1198.1	1.951	6	1207	1.964	20	1215	2.025
395	233.5	9835	1188.6	1.951	9938	1197.2	1.971	5	1206	1.992	19	1214	2.044
394	230.8	9828	1187.7	1.971	9930	1196.3	1.991	4	1205	2.010	18	1213	2.063
393	228.2	9819	1186.7	1.992	9921	1195.3	2.012	3	1204	2.030	17	1212	2.082
392	225.6	9813	1185.8	2.012	9914	1194.3	2.033	2	1203	2.048	16	1211	2.100
391	223.0	9804	1184.8	2.033	9905	1193.3	2.054	1	1202	2.067	15	1210	2.120
390	220.4	9796	1183.9	2.054	9898	1192.3	2.075	9999	1200.9	2.096	14	1209	2.140
389	217.8	9789	1182.9	2.075	9890	1191.4	2.097	9991	1199.9	2.118	12	1208	2.160
388	215.3	9781	1181.9	2.097	9881	1190.4	2.119	9983	1198.9	2.141	11	1207	2.180
387	212.8	9773	1180.9	2.119	9874	1189.4	2.141	9975	1197.8	2.163	10	1206	2.200
386	210.3	9765	1179.9	2.141	9865	1188.4	2.163	9966	1196.8	2.185	9	1205	2.220
385	207.9	9757	1179.0	2.163	9857	1187.4	2.185	9958	1195.8	2.208	8	1204	2.241
384	205.4	9750	1178.0	2.186	9851	1186.5	2.208	9951	1194.8	2.231	7	1203	2.262
383	203.0	9744	1177.1	2.209	9843	1185.5	2.232	9943	1193.9	2.254	6	1202	2.284
382	200.6	9735	1176.1	2.232	9835	1184.5	2.254	9934	1192.9	2.277	5	1201	2.306
381	198.3	9727	1175.1	2.255	9827	1183.5	2.278	9926	1191.9	2.301	4	1200	2.328

Temperatur Degrees F	Pressure, Po per Squar Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.
420	308.6	64	1249	1.686	79	1258	1.728	97	1268	1.778	114	1278
419	305.2	62	1247	1.701	78	1257	1.743	96	1267	1.792	113	1277
418	301.9	61	1246	1.716	77	1256	1.758	95	1266	1.808	112	1276
417	298.7	60	1245	1.731	76	1255	1.773	94	1265	1.822	110	1275
416	295.4	59	1245	1.745	75	1254	1.788	92	1264	1.838	109	1274
415	292.2	58	1244	1.760	73	1253	1.803	91	1263	1.854	108	1273
414	289.0	57	1243	1.776	72	1252	1.819	90	1262	1.870	106	1272
413	285.9	55	1242	1.791	71	1251	1.834	88	1260	1.886	105	1271
412	282.7	54	1241	1.806	70	1250	1.851	87	1259	1.902	104	1270
411	279.6	53	1240	1.821	68	1249	1.867	86	1258	1.919	102	1268
410	276.5	52	1239	1.837	67	1248	1.883	85	1257	1.934	101	1267
409	273.5	51	1238	1.853	66	1247	1.900	83	1256	1.950	100	1266
408	270.5	49	1237	1.869	65	1246	1.916	82	1255	1.967	98	1265
407	267.5	48	1236	1.885	63	1245	1.933	81	1254	1.984	97	1264
406	264.5	47	1235	1.902	62	1244	1.950	79	1253	2.002	96	1263
405	261.6	46	1234	1.918	61	1243	1.967	78	1252	2.020	94	1262
404	258.6	45	1233	1.934	60	1242	1.984	77	1251	2.037	93	1261
403	255.7	43	1232	1.950	59	1241	2.002	75	1250	2.055	92	1260
402	252.9	42	1231	1.967	57	1240	2.019	74	1249	2.073	90	1258
401	250.0	41	1230	1.984	56	1239	2.037	73	1248	2.091	89	1257
400	247.2	40	1229	2.002	55	1238	2.054	72	1247	2.110	88	1256
399	244.4	39	1228	2.020	54	1237	2.073	70	1246	2.129	86	1255
398	241.7	38	1227	2.038	53	1236	2.092	69	1245	2.147	85	1254
397	238.9	36	1225	2.057	51	1234	2.110	68	1244	2.165	84	1253
396	236.2	35	1224	2.075	50	1233	2.139	66	1242	2.184	82	1252
395	233.5	34	1223	2.094	49	1232	2.148	65	1241	2.204	81	1251
394	230.8	33	1222	2.113	48	1231	2.167	64	1240	2.224	80	1250
393	228.2	32	1221	2.131	46	1230	2.186	63	1239	2.244	78	1248
392	225.6	30	1220	2.150	45	1229	2.205	61	1238	2.265	77	1247
391	223.0	29	1219	2.170	44	1228	2.225	60	1237	2.286	76	1246
390	220.4	28	1218	2.190	43	1227	2.245	59	1236	2.306	74	1245
389	217.8	27	1217	2.210	42	1226	2.266	57	1235	2.327	73	1244
388	215.3	26	1216	2.230	40	1225	2.287	56	1234	2.349	72	1243
387	212.8	24	1215	2.250	39	1224	2.308	55	1233	2.370	70	1242
386	210.3	23	1214	2.271	38	1223	2.330	54	1232	2.391	69	1241
385	207.9	22	1213	2.293	37	1222	2.351	52	1231	2.413	68	1240
384	205.4	21	1212	2.315	35	1221	2.372	51	1230	2.434	66	1239
383	203.0	20	1211	2.338	34	1220	2.394	50	1229	2.458	65	1238
382	200.6	18	1210	2.360	33	1219	2.418	48	1228	2.480	64	1237
381	198.3	17	1209	2.383	32	1218	2.440	47	1227	2.502	62	1235
380	195.9	16	1208	2.405	30	1217	2.463	46	1226	2.526	61	1234
379	193.6	15	1207	2.429	29	1216	2.486	44	1224	2.550	60	1233
378	191.3	14	1206	2.452	28	1215	2.509	43	1223	2.575	58	1232
377	189.0	12	1205	2.476	27	1214	2.533	42	1222	2.599	57	1231
376	186.7	11	1204	2.500	26	1213	2.556	41	1221	2.624	55	1229
375	184.5	10	1203	2.524	24	1211	2.580	39	1220	2.648	54	1228
374	182.3	9	1202	2.548	23	1210	2.605	38	1219	2.672	52	1227
373	180.1	8	1201	2.572	22	1209	2.630	37	1218	2.699	51	1226

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
372	177.9	9658	1166.3	2.481	9756	1174.6	2.504	9853	1182.9	2.531	9951
371	175.7	9650	1165.3	2.508	9748	1173.6	2.532	9845	1181.9	2.558	9943
370	173.6	9642	1164.3	2.535	9739	1172.6	2.560	9836	1180.9	2.585	9934
369	171.5	9634	1163.3	2.563	9731	1171.6	2.588	9828	1179.9	2.613	9925
368	169.4	9626	1162.3	2.591	9723	1170.6	2.616	9820	1178.9	2.642	9917
367	167.3	9618	1161.3	2.618	9715	1169.5	2.643	9811	1177.8	2.670	9908
366	165.3	9611	1160.3	2.647	9708	1168.6	2.673	9804	1176.8	2.699	9901
365	163.2	9603	1159.3	2.676	9700	1167.6	2.701	9796	1175.8	2.728	9892
364	161.2	9595	1158.3	2.705	9691	1166.5	2.731	9787	1174.8	2.758	9883
363	159.2	9587	1157.3	2.734	9683	1165.5	2.762	9779	1173.7	2.788	9875
362	157.2	9580	1156.3	2.765	9676	1164.5	2.792	9772	1172.7	2.819	9867
361	155.3	9573	1155.3	2.795	9669	1163.5	2.822	9764	1171.7	2.850	9860
360	153.3	9565	1154.3	2.827	9661	1162.5	2.855	9756	1170.7	2.882	9852
359	151.4	9558	1153.3	2.858	9653	1161.5	2.886	9748	1169.7	2.914	9843
358	149.5	9550	1152.3	2.890	9645	1160.5	2.918	9740	1168.6	2.946	9834
357	147.6	9542	1151.3	2.921	9637	1159.5	2.951	9732	1167.6	2.979	9826
356	145.8	9535	1150.3	2.955	9629	1158.4	2.984	9724	1166.6	3.012	9818
355	143.9	9526	1149.3	2.988	9621	1157.4	3.018	9715	1165.6	3.047	9809
354	142.1	9518	1148.3	3.022	9612	1156.4	3.052	9706	1164.6	3.081	9801
353	140.3	9511	1147.3	3.055	9605	1155.4	3.086	9699	1163.5	3.115	9793
352	138.5	9503	1146.2	3.090	9597	1154.3	3.121	9690	1162.5	3.150	9784
351	136.7	9495	1145.2	3.125	9588	1153.3	3.155	9682	1161.4	3.186	9775
350	135.0	9487	1144.2	3.160	9581	1152.3	3.191	9674	1160 4	3.222	9767
349	133.2	9479	1143.2	3.195	9572	1151.3	3.228	9665	1159.3	3.259	9758
348	131.5	9471	1142.2	3.233	9564	1150.3	3.265	9657	1158.3	3.297	9750
347	129.8	9465	1141.2	3.271	9556	1149.3	3.303	9659	1157.3	3.335	9742
346	128.1	9456	1140.2	3.308	9548	1148.2	3.340	9641	1156.2	3.372	9733
345	126.4	9448	1139.1	3.346	9540	1147.2	3.378	9633	1155.2	3.411	9725
344	124.8	9441	1138.1	3.384	9533	1146.2	3.417	9625	1154.2	3.451	9717
343	123.2	9432	1137.1	3.424	9524	1145.1	3.457	9616	1153.1	3.491	9708
342	121.5	9425	1136.1	3.464	9516	1144.1	3.497	9608	1152.1	3.531	9700
341	119.9	9418	1135.0	3.504	9509	1143.0	3.538	9601	1151.0	3.572	9692
340	118.4	9410	1134.0	3.545	9501	1142.0	3.579	9593	1150.0	3.614	9684
339	116.8	9403	1133.0	3.586	9494	1140.9	3.621	9585	1148.9	3.656	9676
338	115.2	9394	1131.9	3.628	9485	1139.9	3.663	9576	1147.9	3.698	9667
337	113.7	9387	1130.9	3.671	9477	1138.8	3.707	9568	1146.8	3.742	9659
336	112.2	9378	1129.8	3.715	9469	1137.8	3.751	9559	1145.7	3.787	9650
335	110.7	9371	1128.8	3.759	9461	1136.8	3.795	9552	1144.7	3.831	9642
334	109.2	9363	1127.8	3.803	9453	1135.8	3.840	9544	1143.7	3.877	9634
333	107.7	9355	1126.7	3.849	9445	1134.7	3.886	9535	1142.6	3.923	9625
332	106.3	9347	1125.7	3.894	9437	1133.6	3.931	9527	1141.5	3.969	9617
331	104.8	9339	1124.7	3.941	9429	1132.6	3.979	9519	1140.5	4.017	9609
330	103.4	9332	1123.7	3.988	9421	1131.5	4.027	9511	1139.4	4.065	9600
329	102.0	9323	1122.6	4.037	9413	1130.5	4.076	9502	1138.4	4.114	9591
328	100.6	9317	1121.6	4.086	9406	1129.5	4.125	9495	1137.4	4.164	9584
327	99.2	9309	1120.5	4.136	9398	1128.4	4.176	[illegible]	[illegible]	[illegible]	[illegible]

Temperatu Degrees	Pressure, P per Squa Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	
372	177.9	7	1200	2.596	21	1208	2.654	35	1217	2.724	50	1225	2
371	175.7	5	1198	2.620	19	1207	2.680	34	1216	2.751	49	1224	2
370	173.6	4	1197	2.646	18	1206	2.706	33	1215	2.778	47	1223	2
369	171.5	3	1196	2.672	17	1205	2.732	32	1214	2.802	46	1222	2
368	169.4	2	1195	2.700	16	1204	2.760	30	1213	2.831	45	1221	2
367	167.3	1	1194	2.725	14	1203	2.786	29	1212	2.859	43	1219	2
366	165.3	9997	1193.3	2.752	13	1202	2.814	28	1211	2.886	42	1218	2
365	163.2	9988	1192.3	2.782	12	1201	2.842	26	1209	2.913	41	1217	2
364	161.2	9979	1191.2	2.812	11	1200	2.870	25	1208	2.941	39	1216	3
363	159.2	9971	1190.2	2.843	10	1199	2.899	24	1207	2.970	38	1215	3
362	157.2	9963	1189.2	2.874	8	1198	2.928	23	1206	2.999	37	1214	3
361	155.3	9955	1188.1	2.906	7	1197	2.957	21	1205	3.027	35	1213	3
360	153.3	9946	1187.1	2.938	6	1196	2.986	20	1204	3.055	34	1212	3
359	151.4	9938	1186.1	2.971	5	1195	3.017	19	1203	3.086	33	1211	3
358	149.5	9929	1185.0	3.004	3	1193	3.047	17	1202	3.118	31	1209	3
357	147.6	9921	1183.9	3.037	2	1192	3.079	16	1201	3.149	30	1208	3
356	145.8	9913	1182.9	3.070	1	1191	3.108	15	1200	3.181	29	1207	3
355	143.9	9904	1181.9	3.105	9998	1190.0	3.135	13	1198	3.211	27	1206	3
354	142.1	9895	1180.8	3.141	9989	1189.0	3.170	12	1197	3.243	26	1205	3
353	140.3	9887	1179.8	3.176	9980	1187.9	3.206	11	1196	3.275	25	1204	3
352	138.5	9878	1178.7	3.211	9971	1186.8	3.242	10	1195	3.308	23	1203	3
351	136.7	9869	1177.6	3.247	9962	1185.7	3.278	8	1194	3.342	22	1202	3
350	135.0	9861	1176.6	3.284	9954	1184.7	3.315	7	1193	3.377	21	1201	3
349	133.2	9851	1175.5	3.321	9945	1183.6	3.352	6	1192	3.411	19	1199	3
348	131.5	9843	1174.5	3.359	9936	1182.6	3.391	4	1190	3.447	18	1198	3
347	129.8	9835	1173.5	3.398	9928	1181.6	3.430	3	1189	3.481	17	1197	3
346	128.1	9826	1172.4	3.436	9919	1180.5	3.468	2	1188	3.518	15	1196	3
345	126.4	9817	1171.3	3.475	9910	1179.4	3.508	0	1187	3.552	14	1195	3
344	124.8	9809	1170.3	3.516	9901	1178.3	3.549	9994	1186.3	3.582	13	1194	3
343	123.2	9800	1169.2	3.556	9892	1177.2	3.590	9984	1185.2	3.623	11	1193	3
342	121.5	9792	1168.1	3.597	9884	1176.1	3.631	9975	1184.1	3.665	10	1192	3
341	119.9	9785	1167.1	3.639	9876	1175.1	3.673	9968	1183.0	3.707	9	1191	3
340	118.4	9776	1166.0	3.681	9867	1174.0	3.716	9958	1182.0	3.750	7	1189	3
339	116.8	9767	1164.9	3.724	9859	1172.9	3.759	9950	1180.9	3.794	6	1188	3
338	115.2	9758	1163.8	3.768	9849	1171.8	3.803	9940	1179.8	3.838	5	1187	3
337	113.7	9750	1162.7	3.812	9841	1170.7	3.848	9932	1178.7	3.883	3	1186	3
336	112.2	9741	1161.6	3.857	9831	1169.6	3.893	9922	1177.6	3.929	2	1185	3
335	110.7	9732	1160.6	3.903	9823	1168.5	3.939	9913	1176.5	3.975	1	1184	4
334	109.2	9724	1159.6	3.949	9814	1167.5	3.986	9904	1175.4	4.022	9995	1183.4	4
333	107.7	9715	1158.5	3.996	9805	1166.4	4.033	9895	1174.3	4.070	9985	1182.3	4
332	106.3	9707	1157.4	4.043	9796	1165.3	4.080	9886	1173.2	4.118	9976	1181.1	4
331	104.8	9698	1156.3	4.092	9788	1164.2	4.130	9878	1172.1	4.167	9967	1180.0	4
330	103.4	9690	1155.2	4.140	9779	1163.1	4.179	9869	1171.0	4.217	9958	1178.9	4
329	102.0	9680	1154.1	4.192	9770	1162.1	4.229	9859	1170.0	4.268	9949	1177.8	4
328	100.6	9673	1153.1	4.243	9762	1161.0	4.281	9851	1168.9	4.320	9940	1176.7	4
327	99.2	9665	1152.0	4.294	9754	1159.9	4.333	9843	1167.8	4.372	9932	1175.6	4
326	97.8	9655	1150.9	4.346	9744	1158.8	4.384	9833	1166.6	4.424	9921	1174.5	4

Temperature, Degrees Fahr	Pressure, Pound per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	9284	1117.3	4.288	9372	1125.2	4.329	9461	1133.0	4.370	9549	1140.8	4.411
323	93.8	9276	1116.3	4.340	9364	1124.1	4.382	9452	1131.9	4.423	9541	1139.8	4.464
322	92.5	9268	1115.2	4.395	9356	1123.1	4.437	9444	1130.9	4.479	9532	1138.7	4.520
321	91.2	9262	1114.2	4.449	9349	1122.0	4.492	9437	1129.8	4.534	9525	1137.6	4.576
320	90.0	9255	1113.2	4.505	9342	1121.0	4.548	9430	1128.8	4.591	9518	1136.6	4.633
319	38.7	9246	1112.1	4.560	9333	1119.9	4.603	9421	1127.7	4.646	9508	1135.5	4.690
318	87.4	9238	1111.1	4.617	9325	1118.8	4.661	9413	1126.6	4.705	9500	1134.4	4.748
317	86.2	9230	1110.0	4.675	9317	1117.8	4.719	9405	1125.5	4.763	9492	1133.3	4.808
316	85.0	9222	1108.9	4.733	9308	1116.6	4.778	9395	1124.4	4.823	9482	1132.1	4.867
315	83.8	9215	1107.9	4.793	9301	1115.6	4.839	9388	1123.4	4.884	9475	1131.1	4.929
314	82.6	9207	1106.8	4.855	9293	1114.6	4.900	9380	1122.3	4.946	9466	1130.0	4.992
313	81.4	9199	1105.8	4.916	9285	1113.5	4.962	9372	1121.2	5.008	9458	1128.9	5.054
312	80.2	9191	1104.7	4.979	9277	1112.4	5.025	9363	1120.1	5.072	9449	1127.8	5.119
311	79.1	9183	1103.6	5.042	9269	1111.3	5.090	9355	1119.0	5.137	9441	1126.7	5.184
310	77.9	9175	1102.5	5.106	9261	1110.2	5.154	9347	1117.9	5.201	9432	1125.6	5.249
309	76.8	9167	1101.5	5.171	9253	1109.2	5.220	9338	1116.8	5.268	9424	1124.5	5.317
308	75.7	9159	1100.4	5.238	9244	1108.1	5.287	9330	1115.7	5.336	9415	1123.4	5.385
307	74.6	9151	1099.3	5.307	9236	1107.0	5.356	9322	1114.6	5.406	9407	1122.3	5.455
306	73.5	9144	1098.3	5.376	9229	1106.0	5.426	9314	1113.6	5.476	9399	1121.3	5.526
305	72.4	9135	1097.1	5.444	9220	1104.8	5.495	9305	1112.4	5.546	9390	1120.1	5.596
304	71.4	9127	1096.0	5.515	9211	1103.7	5.567	9296	1111.3	5.618	9381	1118.9	5.669
303	70.3	9120	1095.0	5.588	9204	1102.7	5.639	9289	1110.3	5.691	9373	1117.9	5.743
302	69.3	9111	1093.9	5.662	9196	1101.6	5.714	9280	1109.2	5.767	9365	1116.8	5.819
301	68.2	9104	1092.8	5.737	9188	1100.4	5.790	9273	1108.0	5.843	9357	1115.6	5.896
300	67.2	9096	1091.7	5.812	9180	1099.3	5.865	9264	1106.9	5.918	9348	1114.5	6.973
99	66.2	9089	1090.7	5.890	9173	1098.3	5.944	9257	1105.9	5.998	9341	1113.5	5.053
98	65.2	9081	1089.6	5.968	9164	1097.2	6.023	9248	1104.8	6.078	9332	1112.3	6.433
97	64.3	9072	1088.5	6.048	9156	1096.1	6.102	9240	1103.7	6.159	9323	1111.2	6.215
96	63.3	9064	1087.4	6.128	9148	1095.0	6.185	9231	1102.5	6.241	9314	1110.0	6.297
95	62.3	9057	1086.3	6.212	9140	1093.9	6.268	9223	1101.4	6.325	9306	1108.9	6.382
94	61.4	9049	1085.2	6.296	9132	1092.8	6.353	9215	1100.3	6.411	9298	1107.8	6.469
93	60.5	9041	1084.1	6.382	9124	1091.7	6.439	9207	1099.2	6.498	9290	1106.7	6.556
92	59.5	9033	1083.1	6.469	9116	1090.6	6.527	9198	1098.1	6.586	9281	1105.6	6.645
91	58.6	9026	1082.0	6.556	9108	1089.5	6.615	9191	1097.0	6.675	9273	1104.5	6.735
90	57.7	9017	1080.9	6.645	9100	1088.4	6.705	9182	1095.9	6.765	9264	1103.4	6.826
89	56.8	9010	1079.8	6.737	9092	1087.3	6.797	9174	1094.8	6.859	9256	1102.2	6.920
88	56.0	9001	1078.7	6.830	9083	1086.2	6.891	9165	1093.6	6.953	9246	1101.1	7.015
87	55.1	8993	1077.6	6.924	9075	1085.1	6.986	9157	1092.5	7.049	9238	1100.0	7.112
86	54.2	8986	1076.5	7.020	9067	1084.0	7.083	9149	1091.4	7.146	9230	1098.9	7.210
85	53.4	8978	1075.4	7.118	9060	1082.9	7.188	9141	1090.3	7.246	9222	1097.7	7.311
84	52.6	8969	1074.3	7.216	9050	1081.7	7.281	9131	1089.1	7.345	9213	1096.5	7.411
83	51.7	8961	1073.2	7.316	9042	1080.6	7.382	9123	1088.0	7.447	9204	1095.4	7.514
82	50.9	8954	1072.1	7.420	9035	1079.5	7.487	9115	1086.9	7.553	9196	1094.3	7.620
81	50.1	8947	1071.0	7.526	9028	1078.4	7.594	9109	1085.8	7.661	9189	1093.2	7.729
80	49.33	8939	1069.9	7.633	9020	1077.3	7.701	9101	1084.7	7.769	9181	1092.1	7.838
79	48.55	8930	1068.8	7.739	9010	1076.2	7.809	9091	1083.6	7.877	9171	1090.9	7.947
78	47.77	8922	1067.6	7.850	9003	1075.0	7.921	9083	1082.4	7.990	9163	1089.7	[illegible]

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.56			1.57			[illegible]					
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	9637	1148.7	4.452	9726	1156.5	4.491	9814	1164.3	4.532	9903	1172.2	4.573
323	93.8	9629	1147.6	4.505	9717	1155.4	4.546	9805	1163.2	4.587	9893	1171.1	4.628
322	92.5	9620	1146.5	4.562	9708	1154.3	4.603	9796	1162.1	4.645	9885	1169.9	4.686
321	91.2	9613	1145.4	4.618	9701	1153.2	4.659	9889	1161.0	4.702	9877	1168.8	4.744
320	90.0	9605	1144.4	4.676	9693	1152.2	4.718	9781	1160.0	4.760	9868	1167.8	4.803
319	88.0	9596	1143.2	4.733	9683	1151.0	4.776	9770	1158.8	4.818	9858	1166.6	4.861
318	87.4	9587	1142.2	4.792	9675	1149.9	4.835	9762	1157.7	4.878	9849	1165.5	4.922
317	86.2	9579	1141.0	4.852	9666	1148.8	4.896	9753	1156.6	4.939	9840	1164.4	4.983
316	85.0	9569	1139.9	4.912	9656	1147.6	4.957	9743	1155.4	5.000	9830	1163.1	5.045
315	83.8	9562	1138.9	4.974	9648	1146.6	5.019	9735	1154.3	5.063	9822	1162.1	5.108
314	82.6	9553	1137.8	5.037	9640	1145.5	5.083	9726	1153.2	5.128	9813	1161.0	5.173
313	81.4	9544	1136.7	5.101	9631	1144.4	5.147	9717	1152.1	5.192	9804	1159.8	5.238
312	80.2	9536	1135.5	5.165	9622	1143.2	5.212	9708	1151.0	5.258	9794	1158.7	5.305
311	79.1	9527	1134.4	5.231	9613	1142.1	5.279	9699	1149.8	5.325	9785	1157.5	5.372
310	77.9	9518	1133.3	5.297	9604	1141.0	5.345	9690	1148.7	5.391	9776	1156.4	5.439
309	76.8	9510	1132.2	5.364	9595	1139.9	5.413	9681	1147.6	5.461	9767	1155.3	5.508
308	75.7	9501	1131.1	5.434	9586	1138.8	5.482	9672	1146.4	5.531	9757	1154.1	5.579
307	74.6	9492	1130.0	5.505	9577	1137.6	5.554	9663	1145.3	5.603	9748	1153.0	5.652
306	73.5	9484	1128.9	5.576	9569	1136.6	5.626	9655	1144.2	5.676	9740	1151.9	5.725
305	72.4	9474	1127.7	5.647	9559	1135.3	5.697	9644	1143.0	5.748	9729	1150.6	5.798
304	71.4	9466	1126.6	5.720	9551	1134.2	5.771	9635	1141.8	5.823	9720	1149.5	5.873
303	70.3	9458	1125.5	5.795	9542	1133.2	5.847	9627	1140.8	5.899	9712	1148.4	5.949
302	69.3	9449	1124.4	5.872	9534	1132.0	5.924	9618	1139.6	5.977	9702	1147.2	6.028
301	68.2	9441	1123.2	5.949	9525	1130.8	6.002	9610	1138.5	6.055	9694	1146.1	6.107
300	67.2	9432	1122.1	6.026	9516	1129.7	6.080	9600	1137.3	6.134	9685	1144.9	6.187
299	66.2	9424	1121.1	6.107	9508	1128.6	6.161	9592	1136.2	6.216	9676	1143.8	6.270
298	65.2	9416	1119.9	6.188	9499	1127.5	6.243	9583	1135.0	6.298	9667	1142.6	6.353
297	64.3	9407	1118.8	6.270	9490	1126.4	6.326	9574	1133.9	6.382	9657	1141.5	6.437
296	63.3	9398	1117.6	6.353	9481	1125.2	6.410	9564	1132.7	6.466	9648	1140.3	6.523
295	62.3	9390	1116.5	6.439	9473	1124.1	6.497	9556	1131.6	6.554	9639	1139.1	6.611
294	61.4	9381	1115.4	6.526	9464	1122.9	6.584	9547	1130.5	6.642	9630	1138.0	6.699
293	60.5	9373	1114.3	6.614	9456	1121.8	6.673	9538	1129.4	6.731	9621	1136.9	6.790
292	59.5	9364	1113.1	6.704	9446	1120.6	6.764	9529	1128.2	6.823	9611	1135.7	6.880
291	58.6	9355	1112.0	6.795	9438	1119.5	6.855	9520	1127.1	6.915	9603	1134.6	6.975
290	57.7	9347	1110.9	6.887	9429	1118.4	6.947	9511	1125.9	7.008	9593	1133.4	7.068
289	56.8	9338	1109.7	6.981	9421	1117.2	7.043	9503	1124.7	7.104	9585	1132.2	7.166
288	56.0	9328	1108.5	7.078	9410	1116.0	7.140	9492	1123.5	7.202	9574	1131.0	7.264
287	55.1	9320	1107.4	7.175	9402	1114.9	7.238	9484	1122.4	7.301	9566	1129.9	7.364
286	54.2	9312	1106.3	7.274	9394	1113.8	7.337	9475	1121.2	7.401	9557	1128.7	7.465
285	53.4	9304	1105.2	7.375	9385	1112.6	7.440	9467	1120.0	7.504	9548	1127.5	7.569
284	52.6	9294	1104.0	7.476	9375	1111.4	7.541	9456	1118.9	7.607	9537	1126.3	7.672
283	51.7	9286	1102.9	7.580	9367	1110.3	7.646	9448	1117.7	7.712	9529	1125.2	7.778
282	50.9	9277	1101.8	7.687	9358	1109.2	7.754	9439	1116.6	7.821	9520	1124.0	7.888
281	50.1	9270	1100.7	7.797	9351	1108.1	7.865	9431	1115.5	7.933	9512	1122.9	8.001
280	49.33	9262	1099.5	7.907	9342	1106.9	7.976	9423	1114.3	8.044	9503	1121.7	8.113
279	48.55	9252	1098.2	8.017	9332	1105.7	8.086	9412	1113.1	8.156	9493	1120.5	8.225
278	47.77	9243	1097.1	8.131	9323	1104.5	8.211	9404	1111.9	8.272	9484	1119.2	8.343

Temperature, Degrees Fah.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
276	46.26	8907	1065.4	8.077	8987	1072.8	8.149	9067	1080.2	8.221	9147	1087.5	8.293
275	45.52	8898	1064.3	8.192	8978	1071.7	8.265	9058	1079.0	8.339	9137	1086.4	8.41
274	44.78	8891	1063.2	8.310	8970	1070.5	8.385	9050	1077.8	8.459	9129	1085.2	8.532
273	44.06	8883	1062.1	8.431	8962	1069.4	8.506	9042	1076.7	8.582	9121	1084.1	8.656
272	43.35	8875	1061.0	8.555	8954	1068.3	8.631	9033	1075.6	8.708	9113	1082.9	8.783
271	42.64	8867	1059.9	8.679	8946	1067.2	8.756	9025	1074.5	8.833	9104	1081.8	8.910
270	41.95	8859	1058.7	8.805	8937	1066.0	8.883	9016	1073.3	8.961	9095	1080.6	9.039
269	41.26	8851	1057.6	8.932	8929	1064.9	9.012	9008	1072.2	9.091	9087	1079.5	9.170
268	40.58	8843	1056.5	9.066	8921	1063.8	9.146	9000	1071.0	9.227	9078	1078.3	9.306
267	39.91	8835	1055.4	9.199	8913	1062.6	9.281	8992	1069.9	9.362	9070	1077.1	9.443
266	39.26	8826	1054.2	9.331	8904	1061.4	9.414	8983	1068.7	9.497	9061	1075.9	9.579
265	38.60	8818	1053.1	9.473	8896	1060.3	9.557	8974	1067.6	9.640	9052	1074.8	9.724
264	37.96	8810	1051.9	9.614	8888	1059.2	9.699	8966	1066.4	9.784	9044	1073.6	9.869
263	37.33	8803	1050.8	9.755	8880	1058.1	9.841	8958	1065.3	9.927	9036	1072.5	10.01
262	36.71	8795	1049.7	9.905	8872	1056.9	9.992	8950	1064.1	10.08	9027	1071.3	10.16
261	36.09	8788	1048.6	10.05	8865	1055.8	10.14	8942	1063.0	10.23	9020	1070.2	10.32
260	35.48	8780	1047.4	10.20	8857	1054.6	10.29	8934	1061.8	10.38	9011	1069.0	10.47
259	34.88	8771	1046.3	10.36	8848	1053.4	10.45	8925	1060.6	10.54	9002	1067.8	10.63
258	34.29	8763	1045.1	10.52	8839	1052.2	10.61	8916	1059.4	10.70	8993	1066.6	10.79
257	33.71	8755	1044.0	10.67	8832	1051.1	10.77	8909	1058.3	10.86	8985	1065.5	10.95
256	33.14	8747	1042.9	10.84	8823	1050.0	10.93	8900	1057.2	11.03	8977	1064.3	11.12
255	32.57	8738	1041.7	11.01	8815	1048.8	11.11	8891	1056.0	11.20	8967	1063.1	11.30
254	32.01	8730	1040.5	11.18	8806	1047.6	11.28	8883	1054.7	11.38	8959	1061.9	11.48
253	31.46	8722	1039.4	11.36	8798	1046.5	11.46	8874	1053.6	11.55	8950	1060.8	11.65
252	30.92	8714	1038.2	11.54	8791	1045.4	11.64	8866	1052.5	11.74	8942	1059.6	11.84
251	30.38	8707	1037.1	11.72	8782	1044.2	11.82	8858	1051.3	11.92	8934	1058.4	12.02
250	29.86	8698	1035.9	11.90	8774	1043.0	12.00	8849	1050.1	12.11	8925	1057.2	12.21
249	29.34	8690	1034.8	12.09	8765	1041.9	12.19	8841	1048.9	12.30	8916	1056.0	12.40
248	28.82	8682	1033.6	12.27	8757	1040.7	12.38	8832	1047.7	12.49	8907	1054.8	12.59
247	28.32	8674	1032.5	12.47	8749	1039.6	12.57	8825	1046.6	12.68	8900	1053.7	12.79
246	27.82	8666	1031.3	12.66	8741	1038.4	12.77	8816	1045.4	12.88	8891	1052.5	12.99
245	27.33	8658	1030.2	12.85	8733	1037.3	12.96	8807	1044.3	13.09	8882	1051.3	13.18
244	26.85	8650	1029.0	13.07	8725	1036.1	13.18	8800	1043.1	13.30	8874	1050.1	13.41
243	26.37	8642	1027.9	13.28	8717	1035.0	13.40	8791	1042.0	13.51	8865	1049.0	13.63
242	25.90	8635	1026.8	13.50	8709	1033.8	13.61	8783	1040.8	13.73	8857	1047.8	13.84
241	25.44	8626	1025.6	13.72	8700	1032.6	13.83	8774	1039.6	13.95	8848	1046.6	14.07
240	24.98	8619	1024.4	13.94	8693	1031.4	14.06	8766	1038.3	14.18	8840	1045.3	14.29
239	24.53	8610	1023.2	14.16	8684	1030.2	14.29	8758	1037.2	14.41	8832	1044.2	14.53
238	24.09	8603	1022.0	14.40	8676	1029.0	14.52	8750	1036.0	14.65	8823	1043.0	14.77
237	23.66	8594	1020.9	14.64	8668	1027.9	14.76	8741	1034.8	14.89	8815	1041.8	15.01
236	23.23	8587	1019.7	14.88	8660	1026.7	15.01	8733	1033.6	15.13	8806	1040.6	15.26
235	22.80	8578	1018.5	15.12	8651	1025.5	15.25	8724	1032.4	15.38	8797	1039.4	15.51
234	22.39	8570	1017.3	15.37	8642	1024.2	15.50	8715	1031.2	15.64	8788	1038.1	15.77
233	21.98	8562	1016.1	15.63	8635	1023.1	15.77	8707	1030.0	15.90	8780	1036.9	16.03
232	21.57	8553	1014.9	15.89	8626	1021.9	16.03	8699	1028.8	16.16	8771	1035.7	16.30
231	21.18	8546	1013.8	16.16	8618	1020.8	16.30	8690	1027.7	16.43	8763	1034.5	16.57
230	20.78	8538	1012.7	16.43	8610	1019.6	16.57	8682	1026.5	16.70	8755	1033.3	16.84

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
276	46.26	9226	1094.9	8.366	9306	1102.2	8.438	9386	1109.6	8.516	9466
275	45.52	9217	1093.7	8.484	9297	1101.1	8.558	9377	1108.4	8.631	9456
274	44.78	9209	1092.5	8.607	9288	1099.9	8.681	9368	1107.2	8.755	9447
273	44.06	9200	1091.4	8.731	9280	1098.8	8.806	9359	1106.1	8.882	9438
272	43.35	9192	1090.3	8.859	9271	1097.6	8.935	9350	1104.9	9.012	9429
271	42.64	9183	1089.1	8.987	9262	1096.4	9.064	9341	1103.7	9.142	9420
270	41.95	9174	1087.9	9.117	9253	1095.2	9.196	9332	1102.5	9.274	9410
269	41.26	9165	1086.8	9.249	9244	1094.1	9.328	9323	1101.3	9.408	9401
268	40.58	9157	1085.6	9.387	9235	1092.9	9.467	9314	1100.1	9.548	9392
267	39.91	9148	1084.4	9.525	9227	1091.7	9.606	9305	1098.9	9.688	9383
266	39.26	9139	1083.2	9.661	9217	1090.4	9.743	9295	1097.7	9.826	9373
265	38.60	9130	1082.1	9.807	9208	1089.3	9.891	9286	1096.5	9.975	9364
264	37.96	9122	1080.9	9.953	9200	1088.1	10.04	9277	1095.3	10.12	9355
263	37.33	9113	1079.7	10.10	9191	1087.0	10.18	9269	1094.2	10.27	9346
262	36.71	9105	1078.5	10.25	9182	1085.8	10.34	9260	1093.0	10.43	9337
261	36.09	9097	1077.4	10.41	9174	1084.6	10.50	9252	1091.8	10.58	9329
260	35.48	9088	1076.2	10.56	9165	1083.4	10.65	9243	1090.6	10.74	9320
259	34.88	9079	1075.0	10.72	9156	1082.2	10.81	9233	1089.4	10.90	9310
258	34.29	9070	1073.8	10.88	9147	1080.9	10.98	9224	1088.1	11.07	9301
257	33.71	9062	1072.7	11.05	9139	1079.8	11.14	9215	1087.0	11.23	9292
256	33.14	9053	1071.5	11.22	9130	1078.6	11.31	9206	1085.8	11.41	9283
255	32.57	9044	1070.3	11.39	9120	1077.4	11.49	9196	1084.6	11.59	9273
254	32.01	9035	1069.0	11.57	9111	1076.1	11.67	9187	1083.3	11.77	9263
253	31.46	9026	1067.9	11.75	9102	1075.0	11.85	9178	1082.1	11.95	9254
252	30.92	9018	1066.7	11.94	9094	1073.8	12.04	9170	1080.9	12.14	9246
251	30.38	9009	1065.5	12.13	9085	1072.6	12.23	9161	1079.7	12.33	9236
250	29.86	9001	1064.3	12.31	9076	1071.4	12.42	9152	1078.5	12.52	9227
249	29.34	8992	1063.1	12.51	9067	1070.2	12.61	9142	1077.3	12.72	9218
248	28.82	8983	1061.9	12.70	9058	1069.0	12.81	9133	1076.0	12.91	9208
247	28.32	8975	1060.7	12.90	9050	1067.8	13.01	9125	1074.8	13.11	9200
246	27.82	8966	1059.5	13.10	9041	1066.6	13.21	9115	1073.6	13.32	9190
245	27.33	8957	1058.4	13.29	9031	1065.4	13.41	9106	1072.5	13.52	9181
244	26.85	8949	1057.2	13.52	9023	1064.2	13.63	9098	1071.3	13.75	9172
243	26.37	8940	1056.0	13.74	9014	1063.0	13.85	9088	1070.1	13.97	9163
242	25.90	8931	1054.8	13.96	9006	1061.8	14.08	9080	1068.8	14.19	9154
241	25.44	8923	1052.6	14.19	8997	1060.6	14.30	9071	1067.6	14.42	9145
240	24.98	8914	1052.3	14.41	8988	1059.3	14.53	9062	1066.3	14.65	9136
239	24.53	8905	1051.1	14.65	8979	1058.1	14.77	9053	1065.1	14.89	9127
238	24.09	8897	1049.9	14.89	8971	1056.9	15.02	9044	1083.9	15.14	9118
237	23.66	8888	1048.7	15.14	8961	1055.7	15.26	9035	1062.7	15.39	9108
236	23.23	8880	1047.5	15.39	8953	1054.5	15.52	9026	1061.5	15.64	9099
235	22.80	8871	1046.3	15.64	8944	1053.3	15.77	9017	1060.2	15.90	9090
234	22.39	8861	1045.0	15.90	8934	1052.0	16.03	9007	1058.9	16.16	9080
233	21.98	8853	1043.8	16.17	8926	1050.8	16.30	8998	1057.7	16.43	9071
232	21.57	8844	1042.6	16.43	8916	1049.5	16.57	8989	1056.4	16.70	9062
231	21.18	8835	1041.4	16.71	8908	1048.3	16.84	8980	1055.2	16.98	9053
230	20.78	8827	1040.2	16.98	8899	1047.1	17.12	8972	1054.0	17.26	9044

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
228	20.02	8521	1010.2	16.98	8593	1017.1	17.13	8665	1024.0	17.27	8737	1030.8	17.4
227	19.64	8513	1009.1	17.27	8584	1015.9	17.42	8656	1022.8	17.56	8728	1029.6	17.7
226	19.28	8505	1007.9	17.58	8576	1014.7	17.73	8648	1021.6	17.88	8720	1028.4	18.02
225	18.91	8496	1006.7	17.88	8568	1013.5	18.03	8639	1020.4	18.18	8711	1027.2	18.33
224	18.56	8488	1005.5	18.18	8560	1012.3	18.33	8631	1019.2	18.49	8702	1026.0	18.64
223	18.21	8480	1004.4	18.50	8552	1011.2	18.65	8623	1018.0	18.81	8694	1024.8	18.96
222	17.86	8472	1003.2	18.81	8543	1010.0	18.97	8614	1016.8	19.12	8686	1023.6	19.28
221	17.52	8465	1002.0	19.14	8536	1008.8	19.30	8607	1015.6	19.46	8678	1022.4	19.62
220	17.19	8457	1000.8	19.48	8528	1007.6	19.64	8599	1014.4	19.80	8670	1021.2	19.97
219	16.86	8449	999.6	19.82	8519	1006.4	19.99	8590	1013.1	20.15	8660	1019.9	20.32
218	16.53	8440	998.3	20.17	8510	1005.1	20.34	8581	1011.8	20.51	8651	1018.6	20.68
217	16.21	8432	997.1	20.52	8502	1003.9	20.69	8572	1010.6	20.86	8642	1017.4	21.04
216	15.90	8424	995.9	20.88	8494	1002.7	21.06	8564	1009.4	21.23	8634	1016.2	21.40
215	15.59	8416	994.7	21.25	8485	1001.5	21.43	8555	1008.2	21.60	8625	1015.0	21.78
214	15.29	8407	993.5	21.63	8477	1000.3	21.81	8547	1007.0	21.99	8617	1013.7	22.17
213	14.99	8399	992.3	22.01	8469	999.1	22.20	8539	1005.8	22.38	8608	1012.5	22.56
212	14.70	8391	991.1	22.37	8461	997.9	22.56	8530	1004.6	22.74	8600	1011.3	22.93
211	14.41	8383	989.9	22.73	8452	996.7	22.92	8522	1004.4	23.10	8591	1010.1	23.29
210	14.12	8375	988.7	23.14	8444	995.4	23.33	8513	1002.1	23.52	8582	1008.8	23.71
209	13.84	8366	987.5	23.56	8435	994.2	23.75	8504	1000.9	23.95	8574	1007.5	24.14
208	13.57	8358	986.3	23.99	8427	993.0	24.19	8496	999.6	24.38	8565	1006.3	24.58
207	13.29	8350	985.1	24.43	8419	991.7	24.63	8487	998.4	24.83	8556	1005.1	25.04
206	13.03	8342	983.8	24.88	8410	990.5	25.09	8479	997.2	25.29	8547	1003.8	25.50
205	12.77	8333	982.6	25.33	8402	989.3	25.54	8470	995.9	25.75	8539	1002.6	25.96
204	12.51	8325	981.4	25.80	8393	988.0	26.01	8462	994.7	26.22	8530	1001.3	26.43
203	12.25	8317	980.2	26.27	8385	986.8	26.49	8453	993.4	26.70	8521	1000.1	26.92
202	12.01	8309	979.0	26.76	8377	985.6	26.97	8445	992.2	27.19	8513	998.9	27.41
201	11.76	8302	977.8	27.26	8369	984.4	27.49	8437	991.0	27.71	8505	997.6	27.93
200	11.52	8293	976.5	27.77	8361	983.1	27.99	8429	989.7	28.22	8496	996.3	28.45
199	11.28	8285	975.3	28.28	8352	981.9	28.52	8420	988.5	28.75	8487	995.1	28.98
198	11.05	8277	974.1	28.81	8345	980.7	29.05	8412	987.3	29.28	8479	993.9	29.52
197	10.82	8268	972.8	29.35	8335	979.4	29.59	8402	985.9	29.83	8470	992.5	30.07
196	10.60	8259	971.5	29.91	8327	978.1	30.15	8394	984.7	30.39	8461	991.2	30.64
195	10.38	8252	970.4	30.48	8319	976.9	30.73	8385	983.4	30.98	8452	990.0	31.22
194	10.16	8243	969.1	31.06	8310	975.6	31.31	8377	982.2	31.56	8443	988.7	31.81
193	9.95	8235	967.9	31.66	8302	974.4	31.91	8369	981.0	32.17	8435	987.5	32.42
192	9.74	8227	966.7	32.27	8293	973.2	32.53	8360	979.7	32.79	8426	986.2	33.05
191	9.53	8218	965.4	32.88	8285	971.9	33.15	8351	978.4	33.41	8417	984.9	33.68
190	9.33	8210	964.2	33.52	8277	970.7	33.79	8343	977.2	34.06	8409	983.7	34.33
189	9.13	8202	963.0	34.17	8268	969.5	34.45	8334	976.0	34.72	8400	982.4	35.00
188	8.94	8194	961.7	34.83	8260	968.2	35.11	8326	974.7	35.39	8391	981.1	35.67
187	8.75	8186	960.5	35.51	8252	967.0	35.80	8317	973.4	36.08	8383	979.9	36.37
186	8.56	8177	959.2	36.21	8243	965.7	36.50	8308	972.1	36.79	8374	978.6	37.08
185	8.37	8169	958.0	36.92	8235	964.5	37.22	8300	970.9	37.52	8365	977.4	37.81
184	8.19	8161	956.7	37.66	8226	963.2	37.96	8291	969.6	38.26	8356	976.0	38.56
183	8.01	8153	955.5	38.41	8218	961.9	38.71	8283	968.4	39.02	8348	974.8	39.33

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.56 Quality.	1.56 Heat Contents.	1.56 Specific Volume.	1.57 Quality.	1.57 Heat Contents.	1.57 Specific Volume.	1.58 Quality.	1.58 Heat Contents.	1.58 Specific Volume.	1.59 Quality.	1.59 Heat Contents.	1.59 Specific Volume.
228	20.02	8809	1037.7	17.56	8881	1044.6	17.70	8953	1051.5	17.84	9025	1058.3	17.99
227	19.64	8800	1036.5	17.86	8872	1043.4	18.00	8944	1050.3	18.15	9015	1057.1	18.29
226	19.28	8791	1035.3	18.17	8863	1042.2	18.32	8935	1049.0	18.47	9006	1055.9	18.62
225	18.91	8782	1034.1	18.48	8854	1041.0	18.63	8925	1047.8	18.78	8997	1054.6	18.93
224	18.56	8774	1032.8	18.79	8845	1039.7	18.95	8916	1046.5	19.10	8988	1053.3	19.25
223	18.21	8765	1031.6	19.12	8836	1038.5	19.27	8908	1045.3	19.43	8979	1052.1	19.58
222	17.86	8757	1030.4	19.44	8828	1037.2	19.60	8899	1044.0	19.76	8970	1050.9	19.91
221	17.52	8749	1029.2	19.78	8820	1036.0	19.94	8891	1042.8	20.10	8962	1049.7	20.26
220	17.19	8740	1028.0	20.13	8811	1034.8	20.29	8881	1041.6	20.45	8952	1048.4	20.62
219	16.86	8731	1026.7	20.48	8802	1033.5	20.65	8872	1041.3	20.81	8943	1047.1	20.98
218	16.53	8721	1025.4	20.84	8792	1032.2	21.01	8862	1039.0	21.18	8933	1045.8	21.35
217	16.21	8713	1024.2	21.21	8783	1031.0	21.38	8853	1037.7	21.55	8924	1044.5	21.72
216	15.90	8704	1022.9	21.58	8774	1029.7	21.75	8844	1036.4	21.92	8914	1043.2	22.10
215	15.59	8695	1021.7	21.96	8765	1028.5	22.13	8835	1035.2	22.31	8905	1042.0	22.49
214	15.29	8687	1020.5	22.35	8756	1027.2	22.53	8826	1033.9	22.71	8896	1040.7	22.89
213	14.99	8678	1019.3	22.74	8748	1026.0	22.93	8817	1032.7	23.11	8887	1039.4	23.29
212	14.70	8669	1018.0	23.11	8739	1024.7	23.30	8808	1031.4	23.48	8878	1038.1	23.67
211	14.41	8660	1016.8	23.48	8730	1023.5	23.67	8799	1030.2	23.86	8868	1036.9	24.04
210	14.12	8652	1015.5	23.90	8721	1022.2	24.10	8790	1028.9	24.29	8859	1035.6	24.48
209	13.84	8643	1014.2	24.34	8712	1020.9	24.53	8781	1027.6	24.73	8850	1034.3	24.92
208	13.57	8634	1013.0	24.78	8703	1019.7	24.98	8771	1026.3	25.17	8840	1033.0	25.37
207	13.29	8625	1011.7	25.24	8694	1018.4	25.44	8762	1025.1	25.64	8831	1031.7	25.84
206	13.03	8616	1010.5	25.70	8685	1017.1	25.91	8753	1023.8	26.11	8822	1030.4	26.32
205	12.77	8607	1009.2	26.17	8676	1015.9	26.37	8744	1022.5	26.58	8812	1029.1	26.79
204	12.51	8598	1007.9	26.65	8666	1014.6	26.86	8735	1021.2	27.07	8803	1027.8	27.28
203	12.25	8589	1006.7	27.13	8657	1013.3	27.35	8725	1019.9	27.56	8794	1026.6	27.78
202	12.01	8581	1005.5	27.63	8649	1012.1	27.85	8717	1018.7	28.07	8785	1025.3	28.29
201	11.76	8573	1004.2	28.15	8641	1010.8	28.38	8709	1017.4	28.60	8776	1024.0	28.82
200	11.52	8564	1002.9	28.67	8632	1009.5	28.90	8699	1016.1	29.13	8767	1022.7	29.35
199	11.28	8555	1001.7	29.21	8622	1008.2	29.44	8690	1014.8	29.67	8758	1021.4	29.90
198	11.05	8547	1000.4	29.75	8614	1007.0	29.99	8681	1013.6	30.22	8749	1020.2	30.45
197	10.82	8537	999.1	30.31	8604	1005.6	30.54	8671	1012.2	30.78	8738	1018.7	31.02
196	10.60	8528	997.8	30.88	8595	1004.3	31.12	8662	1010.9	31.36	8729	1017.4	31.61
195	10.38	8519	996.5	31.47	8586	1003.1	31.72	8653	1009.6	31.96	8720	1016.2	32.21
194	10.16	8510	995.2	32.07	8577	1001.8	32.32	8644	1008.3	32.57	8710	1014.9	32.82
193	9.95	8502	994.0	32.68	8568	1000.5	32.94	8635	1007.1	33.19	8702	1013.6	33.45
192	9.74	8493	992.7	33.31	8559	999.2	33.57	8626	1005.7	33.83	8692	1012.3	34.09
191	9.53	8483	991.4	33.94	8550	997.9	34.21	8616	1004.4	34.47	8682	1010.9	34.74
190	9.33	8475	990.2	34.60	8541	996.7	34.87	8607	1003.2	35.14	8673	1009.7	35.41
189	9.13	8466	988.9	35.27	8532	995.4	35.55	8598	1001.9	35.82	8664	1008.4	36.10
188	8.94	8457	987.6	35.95	8523	994.1	36.23	8589	1000.6	36.51	8655	1007.0	36.79
187	8.75	8449	986.4	36.65	8514	992.8	36.94	8580	999.3	37.22	8646	1005.8	37.51
186	8.56	8439	985.1	37.37	8505	991.5	37.66	8571	998.0	37.95	8636	1004.4	38.24
185	8.37	8431	983.8	38.11	8496	990.2	38.40	8562	996.7	38.70	8627	1003.1	38.99
184	8.19	8422	982.5	38.87	8487	988.9	39.17	8552	995.3	39.47	8617	1001.8	39.77
183	8.01	8413	981.2	39.63	8478	987.6	39.94	8543	994.1	40.25	8608	1000.5	40.55

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	8128	951.7	40.75	8192	958.1	41.08	8257	964.5	41.40	8322	970.8	41.72
179	7.34	8119	950.4	41.56	8184	956.8	41.89	8249	963.2	42.22	8313	969.6	42.55
178	7.17	8111	949.2	42.40	8176	955.6	42.73	8240	961.9	43.07	8304	968.3	43.41
177	7.01	8103	947.9	43.26	8167	954.3	43.61	8232	960.7	43.95	8296	967.0	44.29
176	6.86	8094	946.6	44.15	8158	953.0	44.50	8223	959.3	44.85	8287	965.7	45.20
175	6.70	8086	945.4	45.04	8150	951.7	45.40	8214	958.1	45.75	8278	964.4	46.11
174	6.55	8078	944.1	45.96	8142	950.5	46.33	8206	956.8	46.69	8269	963.1	47.05
173	6.41	8070	942.9	46.91	8133	949.2	47.28	8197	955.5	47.65	8261	961.9	48.02
172	6.26	8061	941.6	47.88	8125	947.9	48.25	8188	954.3	48.63	8252	960.6	49.01
171	6.12	8052	940.3	48.85	8116	946.6	49.24	8179	952.9	49.62	8243	959.2	50.01
170	5.98	8044	939.0	49.87	8107	945.3	50.27	8171	951.6	50.66	8234	957.9	51.05
169	5.84	8036	937.8	50.92	8099	944.1	51.32	8162	950.3	51.72	8225	956.6	52.12
168	5.71	8027	936.5	51.99	8090	942.8	52.40	8153	949.1	52.81	8216	955.3	53.22
167	5.58	8019	935.2	53.09	8082	941.5	53.51	8144	947.8	53.93	8207	954.0	54.34
166	5.45	8011	934.0	54.21	8073	940.2	54.63	8136	946.5	55.06	8199	952.7	55.48
165	5.32	8002	932.7	55.35	8065	938.9	55.78	8127	945.2	56.22	8190	951.4	56.65
164	5.20	7994	931.4	56.53	8056	937.6	56.97	8119	943.9	57.41	8181	950.1	57.86
163	5.08	7985	930.1	57.73	8048	936.3	58.18	8110	942.6	58.63	8172	948.8	59.08
162	4.960	7977	928.8	58.97	8039	935.0	59.43	8101	941.2	59.89	8163	947.5	60.35
161	4.844	7970	927.6	60.25	8032	933.8	60.72	8094	940.0	61.19	8156	946.2	61.66
160	4.729	7961	926.3	61.55	8023	932.5	62.03	8085	938.7	62.50	8147	944.9	62.98
159	4.617	7953	925.0	62.88	8014	931.2	63.37	8076	937.4	63.86	8138	943.5	64.35
158	4.508	7944	923.7	64.25	8006	929.9	64.75	8067	936.0	65.25	8129	942.2	65.75
157	4.400	7936	922.4	65.67	7998	928.6	66.17	8059	934.8	66.68	8120	940.9	67.19
156	4.295	7928	921.1	67.12	7989	927.3	67.63	8050	933.4	68.15	8111	939.6	68.67
155	4.191	7919	919.8	68.59	7980	926.0	69.12	8041	932.1	69.65	8102	938.3	70.17
154	4.090	7910	918.5	70.10	7971	924.6	70.64	8032	930.8	71.18	8093	936.9	71.72
153	3.991	7902	917.2	71.66	7963	923.4	72.21	8024	929.5	72.76	8085	935.6	73.31
152	3.894	7894	915.9	73.26	7954	922.0	73.82	8015	928.2	74.39	8076	934.3	74.95
151	3.799	7885	914.6	74.90	7946	920.7	75.48	8006	926.8	76.05	8067	932.9	76.62
150	3.706	7877	913.3	76.60	7937	919.4	77.18	7998	925.5	77.77	8058	931.6	78.36
149	3.615	7868	912.0	78.32	7928	918.1	78.92	7989	924.2	79.52	8049	930.3	80.12
148	3.526	7860	910.7	80.09	7920	916.8	80.71	7980	922.9	81.32	8040	929.0	81.93
147	3.439	7851	909.4	81.89	7911	915.5	82.51	7971	921.5	83.14	8031	927.6	83.76
146	3.353	7843	908.1	83.76	7903	914.2	84.40	7963	920.2	85.04	8023	926.3	85.68
145	3.270	7834	906.8	85.71	7894	912.8	86.36	7954	918.9	87.02	8013	924.9	87.67
144	3.188	7826	905.5	87.65	7886	911.5	88.32	7945	917.6	88.98	8005	923.6	89.65
143	3.108	7817	904.1	89.66	7877	910.2	90.34	7936	916.2	91.03	7995	922.2	91.71
142	3.029	7809	902.8	91.75	7868	908.9	92.45	7927	914.9	93.15	7987	920.9	93.84
141	2.953	7801	901.5	93.93	7860	907.5	94.64	7920	913.5	95.35	7979	919.6	96.06
140	2.877	7792	900.2	96.16	7851	906.2	96.89	7910	912.2	97.61	7969	918.2	98.34
139	2.804	7784	898.9	98.47	7843	904.9	99.21	7902	910.8	99.96	7961	916.8	100.7
138	2.732	7776	897.6	100.8	7834	903.5	101.5	7893	909.5	102.3	7952	915.5	103.1
137	2.662	7767	896.2	103.1	7825	902.2	103.9	7884	908.1	104.7	7942	914.1	105.5
136	2.593	7758	894.9	105.6	7817	900.8	106.4	7875	906.8	107.2	7934	912.7	108.0
135	2.526	7750	893.6	108.1	7808	899.5	108.9	7866	905.5	109.7	7925	911.4	110.5
134	2.460	7741	892.2	110.8	7799	898.1	111.6	7857	904.1	112.4	7915	[illegible]	[illegible]

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.56			1.57			1.58			1.59		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	8386	977.2	42.05	8451	983.6	42.37	8516	990.3	42.70	8580	996.4	43.02
179	7.34	8378	976.0	42.88	8442	982.3	43.22	8507	988.7	43.55	8571	995.1	43.88
178	7.17	8369	974.7	43.74	8433	981.1	44.08	8498	987.4	44.42	8562	993.8	44.75
177	7.01	8360	973.4	44.63	8424	979.8	44.98	8489	986.1	45.32	8553	992.5	45.66
176	6.86	8351	972.1	45.54	8415	978.4	45.89	8479	984.8	46.24	8543	991.1	46.59
175	6.70	8342	970.8	46.46	8406	977.1	46.82	8470	983.5	47.18	8534	989.8	47.53
174	6.55	8333	969.5	47.42	8397	975.8	47.78	8461	982.1	48.14	8525	988.5	48.50
173	6.41	8324	968.2	48.39	8388	974.5	48.76	8452	980.8	49.13	8515	987.2	49.50
172	6.26	8315	966.9	49.39	8379	973.2	49.76	8442	979.5	50.14	8506	985.8	50.52
171	6.12	8306	965.5	50.39	8369	971.8	50.78	8433	978.1	51.16	8496	984.4	51.55
170	5.98	8297	964.2	51.44	8360	970.5	51.83	8423	976.8	52.23	8487	983.1	52.62
169	5.84	8288	962.9	52.52	8351	969.2	52.92	8414	975.5	53.32	8477	981.8	53.72
168	5.71	8279	961.6	53.62	8342	967.9	54.03	8405	974.2	54.44	8468	980.4	54.85
167	5.58	8270	960.3	54.76	8333	966.6	55.17	8396	972.8	55.59	8459	979.1	56.00
166	5.45	8261	959.0	55.90	8324	965.2	56.33	8387	971.5	56.75	8449	977.7	57.18
165	5.32	8252	957.7	57.08	8315	963.9	57.51	8377	970.1	57.95	8440	976.4	58.38
164	5.20	8243	956.3	58.30	8306	962.6	58.74	8368	968.8	59.18	8430	975.0	59.62
163	5.08	8234	955.0	59.53	8296	961.2	59.98	8359	967.5	60.43	8421	973.7	60.88
162	4.960	8225	953.7	60.81	8287	959.9	61.27	8349	966.1	61.73	8411	972.3	62.19
161	4.844	8218	952.4	62.13	8280	958.6	62.59	8341	964.8	63.06	8403	971.0	63.53
160	4.729	8209	951.1	63.46	8270	957.3	63.94	8332	963.5	64.42	8394	969.7	64.89
159	4.617	8199	949.7	64.83	8261	955.9	65.32	8323	962.1	65.81	8384	968.3	66.29
158	4.508	8190	948.4	66.24	8252	954.6	66.74	8313	960.7	67.24	8375	966.9	67.74
157	4.400	8182	947.1	67.70	8243	953.3	68.20	8304	959.4	68.71	8366	965.6	69.22
156	4.295	8173	945.8	69.19	8234	951.9	69.71	8295	958.1	70.23	8356	964.2	70.74
155	4.191	8163	944.4	70.70	8224	950.5	71.23	8286	956.7	71.76	8347	962.8	72.29
154	4.090	8154	943.0	72.26	8215	949.2	72.80	8276	955.3	73.34	8337	961.5	73.88
153	3.991	8146	941.7	73.86	8206	947.9	74.42	8267	954.0	74.97	8328	960.1	75.52
152	3.894	8136	940.4	75.51	8197	946.5	76.08	8258	952.6	76.64	8318	958.7	77.20
151	3.799	8127	939.0	77.20	8188	945.1	77.77	8248	951.2	78.35	8309	957.3	78.92
150	3.706	8118	937.7	78.94	8179	943.8	79.53	8239	949.9	80.12	8300	956.0	80.70
149	3.615	8109	936.3	80.72	8169	942.4	81.32	8230	948.5	81.92	8290	954.6	82.52
148	3.526	8100	935.0	82.54	8160	941.1	83.16	8221	947.2	83.77	8281	953.3	84.38
147	3.439	8091	933.7	84.39	8151	939.7	85.01	8211	945.8	85.64	8271	951.8	86.27
146	3.353	8082	932.3	86.32	8142	938.4	86.96	8202	944.4	87.60	8262	950.5	88.24
145	3.270	8073	930.9	88.32	8133	937.0	88.97	8192	943.0	89.63	8252	949.1	90.28
144	3.188	8064	929.6	90.32	8124	935.7	90.99	8183	941.7	91.65	8243	947.7	92.32
143	3.108	8055	928.2	92.39	8114	934.3	93.07	8173	940.3	93.75	8233	946.3	94.43
142	3.029	8046	926.9	94.54	8105	932.9	95.23	8164	938.9	95.93	8224	944.9	96.63
141	2.953	8038	925.6	96.77	8097	931.6	97.49	8156	937.6	98.20	8215	943.6	98.91
140	2.877	8028	924.2	99.07	8087	930.2	99.80	8146	936.1	100.5	8205	942.1	101.3
139	2.804	8019	922.8	101.4	8078	928.8	102.2	8137	934.8	102.9	8196	940.8	103.7
138	2.732	8010	921.5	103.8	8069	927.4	104.6	8128	933.4	105.3	8187	939.4	106.1
137	2.662	8001	920.1	106.3	8060	926.0	107.0	8118	932.0	107.8	8177	938.0	108.6
136	2.593	7992	918.7	108.8	8050	924.7	109.6	8109	930.6	110.4	8167	936.6	111.2
135	2.526	7983	917.3	111.4	8041	923.3	112.2	8100	929.2	113.0	8158	935.2	113.8

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
132	2.333	7724	889.5	116.2	7782	895.4	117.0	7840	901.4	117.9	7897	907.3	118.8
131	2.272	7715	888.2	119.0	7773	894.1	119.9	7831	900.0	120.8	7889	905.9	121.6
130	2.212	7707	886.9	121.8	7764	892.8	122.8	7822	898.7	123.7	7880	904.6	124.6
129	2.153	7698	885.5	124.9	7756	891.4	125.9	7813	897.3	126.8	7871	903.2	127.7
128	2.096	7690	884.2	128.0	7747	890.1	128.9	7804	895.9	129.9	7862	901.8	130.8
127	2.040	7681	882.9	131.1	7738	888.8	132.1	7795	894.6	133.1	7853	900.5	134.0
126	1.985	7672	881.5	134.4	7729	887.4	135.4	7787	893.2	136.4	7844	899.1	137.4
125	1.932	7664	880.2	137.8	7721	886.1	138.8	7778	891.9	139.8	7834	897.8	140.9
124	1.880	7655	878.8	141.2	7712	884.6	142.3	7769	890.5	143.3	7825	896.3	144.4
123	1.829	7646	877.5	144.7	7703	883.3	145.8	7760	889.1	146.9	7816	895.0	148.0
122	1.779	7638	876.1	148.4	7694	881.9	149.5	7751	887.7	150.6	7807	893.5	151.7
121	1.730	7630	874.8	152.2	7687	880.6	153.3	7743	886.4	154.5	7799	892.2	155.6
120	1.683	7622	873.4	156.1	7678	879.2	157.2	7734	885.0	158.4	7790	890.8	159.5
119	1.636	7613	872.1	160.1	7669	877.9	161.3	7725	883.7	162.5	7781	889.4	163.6
118	1.591	7604	870.7	164.3	7660	876.5	165.5	7716	882.3	166.7	7772	888.0	167.9
117	1.547	7596	869.3	168.5	7651	875.1	169.7	7707	880.9	170.9	7763	886.6	172.2
116	1.504	7587	867.9	172.8	7642	873.7	174.1	7698	879.4	175.4	7754	885.2	176.6
115	1.462	7579	866.6	177.3	7634	872.4	178.6	7690	878.1	179.9	7745	883.8	181.2
114	1.421	7570	865.2	182.0	7625	871.0	183.3	7680	876.7	184.6	7736	882.4	186.0
113	1.381	7561	863.9	186.7	7616	869.6	188.1	7671	875.3	189.5	7727	881.0	190.8
112	1.342	7552	862.5	191.7	7608	868.2	193.1	7663	873.9	194.5	7718	879.6	195.9
111	1.304	7543	861.2	196.8	7598	866.8	198.2	7653	872.5	199.7	7708	878.2	201.1
110	1.266	7535	859.8	202.0	7590	865.4	203.5	7645	871.1	205.0	7700	876.8	206.4
109	1.230	7526	858.4	207.4	7581	864.1	208.9	7635	869.7	210.4	7690	875.4	211.9
108	1.195	7518	857.0	213.0	7572	862.7	214.5	7627	868.3	216.1	7681	874.0	217.6
107	1.160	7508	855.6	218.6	7563	861.3	220.2	7617	866.9	221.8	7672	872.6	223.4
106	1.127	7500	854.2	224.5	7554	859.9	226.2	7609	865.5	227.8	7663	871.2	229.4
105	1.094	7491	852.8	230.7	7546	858.5	232.4	7600	864.1	234.1	7654	869.8	235.7
104	1.062	7482	851.4	237.0	7536	857.1	238.8	7591	862.7	240.5	7645	868.3	242.2
103	1.031	7474	850.1	243.6	7528	855.7	245.3	7582	861.3	247.1	7636	866.9	248.8
102	1.000	7465	848.7	250.2	7519	854.3	252.0	7573	859.9	253.8	7627	865.5	255.6
101	0.971	7457	847.3	257.1	7511	852.9	259.0	7565	858.5	260.8	7618	864.1	262.7
100	0.942	7448	845.9	264.2	7502	851.5	266.1	7555	857.1	268.0	7609	862.7	269.9
99	0.914	7439	844.5	271.7	7493	850.1	273.6	7546	856.7	275.6	7600	861.3	277.5
98	0.887	7431	843.1	279.3	7484	848.7	281.3	7537	854.2	283.3	7591	859.8	285.3
97	0.860	7422	841.8	287.2	7475	847.4	289.2	7528	852.9	291.3	7581	858.5	293.3
96	0.834	7414	840.4	295.4	7467	846.0	297.5	7520	851.5	299.6	7573	857.1	301.7
95	0.809	7405	839.0	303.8	7458	844.6	305.9	7511	850.1	308.1	7564	855.7	310.3
94	0.784	7396	837.6	312.4	7449	843.1	314.7	7502	848.7	316.9	7555	854.2	319.1
93	0.761	7388	836.2	321.4	7440	841.7	323.6	7493	847.3	325.9	7546	852.8	328.2
92	0.737	7379	834.8	330.6	7431	840.3	333.0	7484	845.8	335.3	7536	851.3	337.7
91	0.715	7370	833.4	340.3	7422	838.9	342.7	7475	844.4	345.1	7527	849.9	347.5
90	0.693	7361	832.0	350.1	7413	837.5	352.6	7466	843.0	355.1	7518	848.4	357.5
89	0.671	7352	830.6	360.3	7404	836.1	362.8	7456	841.6	365.4	7509	847.0	367.9
88	0.650	7343	829.1	370.7	7395	834.6	373.3	7447	840.1	375.9	7499	845.5	378.6
87	0.630	7335	827.7	381.7	7387	833.2	384.4	7439	838.7	387.1	[illegible]	[illegible]	[illegible]

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.56			1.57			1.58			1.59		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
132	2.332	7955	913.2	119.6	8013	919.1	120.5	8071	925.0	121.4	8129	930.9	122.3
131	2.272	7946	911.8	122.5	8004	917.7	123.4	8062	923.6	124.3	8119	929.5	125.2
130	2.212	7937	910.4	125.5	7995	916.3	126.4	8052	922.2	127.3	8110	928.1	128.2
129	2.153	7928	909.1	128.7	7986	915.0	129.6	8043	920.8	130.5	8100	926.7	131.5
128	2.096	7919	907.7	131.8	7976	913.6	132.7	8033	919.4	133.7	8091	925.3	134.6
127	2.040	7910	906.3	135.0	7967	912.2	136.0	8024	918.0	137.0	8081	923.9	137.9
126	1.985	7901	904.9	138.4	7958	910.8	139.4	8015	916.6	140.4	8072	922.5	141.4
125	1.932	7891	903.6	141.9	7948	909.4	142.9	8005	915.3	143.9	8062	921.1	145.0
124	1.880	7882	902.1	145.4	7939	908.0	146.5	7996	913.8	147.5	8052	919.6	148.6
123	1.829	7873	900.8	149.0	7930	906.6	150.1	7986	912.5	151.2	8043	918.3	152.3
122	1.779	7864	899.3	152.8	7920	905.1	153.9	7977	911.0	155.0	8033	916.8	156.1
121	1.730	7856	898.0	156.7	7912	903.8	157.8	7968	909.6	159.0	8025	915.4	160.1
120	1.683	7846	896.6	160.7	7903	902.4	161.8	7959	908.2	163.0	8015	914.0	164.2
119	1.636	7837	895.2	164.8	7893	901.0	166.0	7949	906.8	167.2	8005	912.6	168.4
118	1.591	7828	893.8	169.1	7884	899.6	170.3	7940	905.4	171.5	7996	911.1	172.7
117	1.547	7819	892.4	173.4	7875	898.2	174.7	7931	903.9	175.9	7986	909.7	177.1
116	1.504	7809	890.9	177.9	7865	896.7	179.2	7921	902.4	180.4	7976	908.2	181.7
115	1.462	7801	889.6	182.5	7856	895.3	183.8	7912	901.0	185.1	7967	906.8	186.4
114	1.421	7791	888.2	187.3	7847	893.9	188.6	7902	899.6	190.0	7958	905.4	191.3
113	1.381	7782	886.8	192.2	7837	892.5	193.6	7892	898.2	194.9	7948	904.0	196.3
112	1.342	7773	885.4	197.3	7828	891.1	198.7	7883	896.8	200.1	7938	902.5	201.5
111	1.304	7763	884.0	202.5	7819	889.7	204.0	7874	895.4	205.4	7929	901.1	206.9
110	1.266	7755	882.5	207.9	7809	888.2	209.4	7864	893.9	210.8	7919	899.6	212.3
109	1.230	7745	881.1	213.5	7800	886.8	215.0	7855	892.5	216.5	7909	898.2	218.0
108	1.195	7736	879.7	219.2	7790	885.4	220.7	7845	891.0	222.3	7900	896.7	223.8
107	1.160	7726	878.3	225.0	7781	884.0	226.6	7835	889.6	228.2	7890	895.3	229.8
106	1.127	7717	876.8	231.1	7772	882.5	232.7	7826	888.1	234.3	7880	893.8	235.9
105	1.094	7708	875.4	237.4	7763	881.1	239.1	7817	886.7	240.8	7871	892.4	242.4
104	1.062	7699	874.0	243.9	7753	879.6	245.6	7807	885.2	247.3	7861	890.9	249.0
103	1.031	7690	872.6	250.6	7744	878.2	252.4	7798	883.8	254.1	7851	889.5	255.9
102	1.000	7680	871.1	257.4	7734	876.8	259.3	7788	882.4	261.1	7842	888.0	262.9
101	0.971	7672	869.7	264.5	7726	875.3	266.4	7779	880.9	268.2	7833	886.5	270.1
100	0.942	7662	868.3	271.8	7716	873.8	273.7	7769	879.4	275.6	7823	885.0	277.5
99	0.914	7653	866.9	279.5	7707	872.4	281.4	7760	878.0	283.4	7813	883.6	285.3
98	0.887	7644	865.4	287.3	7697	871.0	289.3	7751	876.5	291.3	7804	882.1	293.3
97	0.860	7635	864.0	295.4	7688	869.6	297.4	7741	875.1	299.5	7794	880.7	301.6
96	0.834	7626	862.6	303.8	7679	868.2	305.9	7732	873.7	308.1	7785	879.3	310.2
95	0.809	7617	861.2	312.4	7670	866.8	314.6	7723	872.3	316.8	7776	877.9	319.0
94	0.784	7608	859.7	321.3	7660	865.3	323.6	7713	870.8	325.8	7766	876.4	328.0
93	0.761	7598	858.3	330.5	7651	863.9	332.8	7704	869.4	335.1	7756	874.9	337.4
92	0.737	7589	856.9	340.1	7641	862.4	342.4	7694	867.9	344.8	7746	873.4	347.1
91	0.715	7579	855.4	349.9	7632	860.9	352.4	7684	866.4	354.8	7737	871.9	357.2
90	0.693	7570	853.9	360.0	7622	859.4	362.5	7675	864.9	365.0	7727	870.4	367.5
89	0 671	7561	852.5	370.5	7613	858.0	373.0	7665	863.5	375.6	7717	868.9	378.1
88	0.650	7551	851.0	381.2	7603	856.5	383.8	7655	862.0	386.4	7707	867.4	389.1
87	0.630	7542	849.5	392.5	7594	855.1	395.2	7646	860.5	397.9	7698	866.0	400.6
86	0.610	7533	848.1	404.1	7585	853.6	406.8	7637	859.0	409.6	7688	864.5	412.4

Temperature, Degrees Fah	Pressure, Pounds per Square Inch.	1.60 Quality.	Heat Contents.	Specific Volume.	1.61 Quality.	Heat Contents.	Specific Volume.	1.62 Quality.	Heat Contents.	Specific Volume.	1.63 Quality.	Heat Contents.	Specific Volume.
420	308.6	134	1289	1.872	152	1298	1.920	172	1309	1.970	191	1319	2.0
419	305.2	132	1287	1.888	150	1297	1.935	170	1307	1.985	190	1318	2.03
418	301.9	131	1286	1.903	149	1296	1.952	169	1306	2.001	188	1317	2.04
417	298.7	129	1285	1.920	147	1294	1.969	167	1305	2.019	187	1316	2.06
416	295.4	128	1284	1.935	146	1293	1.984	166	1304	2.035	185	1314	2.08
415	292.2	127	1283	1.951	144	1292	2.002	164	1303	2.051	183	1313	2.09
414	289.0	125	1281	1.969	143	1291	2.019	163	1302	2.069	182	1312	2.11
413	285.9	124	1280	1.986	142	1290	2.036	161	1300	2.085	180	1310	2.13
412	282.7	122	1279	2.003	140	1289	2.053	160	1299	2.103	179	1309	2.15
411	279.6	121	1278	2.020	139	1288	2.071	158	1298	2.120	177	1308	2.16
410	276.5	119	1277	2.036	137	1287	2.089	157	1297	2.138	175	1307	2.18
409	273.5	118	1276	2.054	136	1286	2.106	155	1296	2.156	174	1306	2.204
408	270.5	117	1275	2.072	134	1284	2.124	154	1295	2.175	172	1304	2.222
407	267.5	115	1273	2.090	133	1283	2.141	152	1294	2.194	171	1303	2.241
406	264.5	114	1272	2.109	131	1282	2.160	151	1293	2.211	169	1302	2.261
405	261.6	112	1271	2.127	130	1281	2.178	149	1291	2.230	168	1301	2.281
404	258.6	111	1270	2.145	129	1280	2.197	148	1290	2.250	166	1300	2.300
403	255.7	110	1269	2.164	127	1279	2.216	146	1289	2.270	165	1299	2.319
402	252.9	108	1268	2.183	126	1278	2.235	145	1288	2.290	163	1297	2.339
401	250.0	107	1267	2.202	124	1276	2.254	143	1287	2.309	161	1296	2.360
400	247.2	105	1266	2.220	123	1275	2.273	142	1286	2.329	160	1295	2.380
399	244.4	104	1265	2.240	121	1274	2.292	140	1284	2.350	158	1294	2.400
398	241.7	103	1264	2.260	120	1273	2.312	139	1283	2.370	157	1293	2.420
397	238.9	101	1262	2.280	118	1272	2.332	137	1282	2.390	155	1291	2.441
396	236.2	100	1261	2.301	117	1271	2.352	136	1281	2.411	154	1290	2.463
395	233.5	98	1260	2.322	115	1269	2.374	134	1280	2.432	152	1289	2.486
394	230.8	97	1259	2.343	114	1268	2.395	133	1279	2.454	151	1288	2.508
393	228.2	96	1258	2.365	113	1267	2.416	131	1277	2.476	149	1287	2.530
392	225.6	94	1257	2.387	111	1266	2.437	130	1276	2.499	147	1285	2.552
391	223.0	93	1256	2.409	110	1265	2.459	128	1275	2.520	146	1284	2.574
390	220.4	92	1255	2.430	108	1264	2.482	127	1274	2.542	144	1283	2.596
389	217.8	90	1253	2.450	107	1263	2.504	125	1273	2.564	143	1282	2.620
388	215.3	89	1252	2.472	105	1261	2.526	123	1271	2.587	141	1281	2.645
387	212.8	87	1251	2.494	104	1260	2.550	122	1270	2.610	140	1280	2.669
386	210.3	86	1250	2.518	102	1259	2.572	120	1269	2.634	138	1278	2.692
385	207.9	84	1249	2.540	101	1258	2.595	119	1268	2.658	136	1277	2.718
384	205.4	83	1248	2.563	99	1257	2.620	117	1267	2.680	135	1276	2.742
383	203.0	82	1247	2.586	98	1256	2.643	116	1266	2.705	133	1275	2.768
382	200.6	80	1246	2.610	97	1255	2.669	114	1264	2.730	132	1274	2.792
381	198.3	79	1245	2.623	95	1254	2.693	113	1263	2.755	130	1272	2.819
380	195.9	77	1243	2.656	94	1253	2.717	111	1262	2.782	129	1271	2.844
379	193.6	76	1242	2.680	92	1251	2.744	110	1261	2.808	127	1270	2.870
378	191.3	75	1241	2.706	91	1250	2.769	108	1259	2.833	126	1269	2.897
377	189.0	73	1240	2.730	89	1249	2.794	107	1258	2.860	124	1268	2.923
376	186.7	72	1239	2.757	88	1248	2.820	105	1257	2.887	122	1266	2.952
375	184.5	70	1238	2.781	86	1247	2.849	104	1256	2.914	121	1265	2.97

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.64			1.65			1.66			
		Quality	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
420	308.6	212	1330	2.065	233	1341	2.117	255	1352	2.166	277
419	305.2	210	1328	2.082	231	1339	2.133	254	1351	2.184	275
418	301.9	209	1327	2.099	230	1338	2.151	252	1349	2 202	273
417	298.7	207	1326	2.116	228	1337	2.170	250	1348	2.220	272
416	295.4	206	1325	2.133	226	1335	2.186	248	1347	2.238	270
415	292.2	204	1324	2.150	224	1334	2.204	247	1346	2.256	268
414	289.0	202	1322	2.169	223	1333	2.222	245	1345	2.274	266
413	285.9	201	1321	2.186	221	1332	2.240	243	1343	2.293	264
412	282.7	199	1320	2.204	219	1330	2.260	241	1342	2.311	263
411	279.6	198	1319	2.222	218	1329	2.278	240	1341	2.330	261
410	276.5	196	1318	2.240	216	1328	2.296	238	1339	2.349	259
409	273.5	194	1316	2.260	214	1326	2.314	236	1338	2.369	257
408	270.5	193	1315	2.279	213	1325	2.333	234	1336	2.389	256
407	267.5	191	1314	2.297	211	1324	2.352	233	1335	2.408	254
406	264.5	189	1313	2.316	209	1323	2.372	231	1334	2.428	252
405	261.6	188	1312	2.335	208	1322	2.392	229	1333	2.449	250
404	258.6	186	1310	2.354	206	1320	2.412	227	1331	2.469	248
403	255.7	185	1309	2.374	204	1319	2.433	226	1330	2.490	246
402	252.9	183	1308	2.394	203	1318	2.454	224	1329	2.511	245
401	250.0	181	1307	2.415	201	1317	2.475	222	1328	2.533	243
400	247.2	180	1306	2.437	199	1315	2.496	221	1327	2.554	241
399	244.4	178	1304	2.459	198	1314	2.518	219	1326	2.577	239
398	241.7	176	1303	2.480	196	1313	2.539	217	1324	2.600	237
397	238.9	175	1302	2.502	194	1312	2.560	215	1323	2.620	236
396	236.2	173	1301	2.523	193	1311	2.582	213	1321	2.644	234
395	233.5	172	1300	2.546	191	1309	2.605	212	1320	2.668	232
394	230.8	170	1298	2.569	189	1308	2.629	210	1319	2.690	230
393	228.2	168	1297	2.591	188	1307	2.650	208	1318	2.715	228
392	225.6	167	1296	2.614	186	1306	2.675	207	1317	2.740	227
391	223.0	165	1295	2.638	184	1304	2.700	205	1315	2.764	225
390	220.4	163	1293	2.660	183	1303	2.724	203	1314	2.788	223
389	217.8	162	1292	2.685	181	1302	2.748	201	1312	2.815	221
388	215.3	160	1291	2.710	179	1300	2.772	200	1311	2.840	220
387	212.8	159	1290	2.734	177	1299	2.798	198	1310	2.866	218
386	210.3	157	1289	2.759	176	1298	2.822	196	1309	2.892	216
385	207.9	155	1287	2.784	174	1297	2.850	194	1307	2.919	214
384	205.4	154	1286	2.809	173	1296	2.876	193	1306	2.945	212
383	203.0	152	1285	2.835	171	1295	2.902	191	1305	2.973	210
382	200.6	150	1283	2.861	169	1293	2.930	189	1304	3.000	209
381	198.3	149	1282	2.889	167	1292	2.958	187	1302	3.029	207
380	195.9	147	1281	2.914	166	1291	2.984	186	1301	3.056	205

Temperature, Degrees Fahr	Pressure, Pound per Square Inch.	1.60			1.61			1.62			1.63		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
372	177.9	66	1235	2.860	82	1243	2.927	99	1253	2.996	116	1262	3.060
371	175.7	65	1234	2.888	81	1242	2.954	98	1252	3.024	115	1261	3.087
370	173.6	63	1232	2.914	79	1241	2.980	96	1250	3.052	113	1259	3.017
369	171.5	62	1231	2.941	78	1240	3.010	94	1249	3.080	111	1258	3.147
368	169.4	61	1230	2.970	76	1239	3.039	93	1248	3.110	100	1257	3.177
367	167.3	59	1229	2.998	75	1238	3.069	91	1246	3.140	108	1256	3.206
366	165.3	58	1228	3.027	73	1236	3.098	90	1245	3.170	107	1255	3.237
365	163.2	56	1226	3.055	72	1235	3.127	88	1244	3.200	105	1253	3.267
364	161.2	55	1226	3.084	70	1234	3.155	87	1243	3.229	104	1252	3.300
363	159.2	54	1225	3.114	69	1233	3.185	85	1242	3.260	102	1251	3.332
362	157.2	52	1223	3.142	67	1232	3.215	84	1241	3.291	100	1250	3.364
361	155.3	51	1222	3.175	66	1231	3.246	82	1239	3.322	99	1249	3.397
360	153.3	49	1221	3.206	65	1230	3.277	81	1238	3.354	97	1247	3.430
359	151.4	48	1220	3.238	63	1228	3.310	79	1237	3.388	96	1246	3.463
358	149.5	46	1218	3.269	62	1227	3.340	78	1236	3.422	94	1245	3.498
357	147.6	45	1217	3.300	60	1226	3.374	76	1235	3.457	93	1244	3.532
356	145.8	44	1216	3.333	59	1225	3.406	75	1234	3.490	91	1243	3.569
355	143.9	42	1215	3.366	57	1224	3.440	73	1233	3.525	89	1241	3.605
354	142.1	41	1214	3.399	56	1223	3.473	72	1232	3.561	88	1240	3.641
353	140.3	39	1213	3.433	54	1221	3.509	70	1230	3.597	86	1239	3.680
352	138.5	38	1212	3.467	53	1220	3.543	69	1229	3.633	85	1238	3.716
351	136.7	37	1211	3.500	51	1219	3.579	67	1228	3.670	83	1237	3.754
350	135.0	35	1209	3.536	50	1218	3.615	66	1227	3.707	82	1236	3.790
349	133.2	34	1208	3.571	49	1217	3.651	64	1226	3.745	80	1234	3.829
348	131.5	32	1207	3.608	47	1216	3.690	63	1225	3.782	78	1233	3.867
347	129.8	31	1206	3.644	46	1215	3.727	61	1223	3.820	77	1232	3.906
346	128.1	30	1205	3.680	44	1213	3.761	59	1222	3.860	75	1231	3.945
345	126.4	28	1204	3.719	43	1212	3.800	58	1221	3.898	74	1230	3.985
344	124.8	27	1203	3.758	41	1211	3.840	56	1219	3.939	72	1229	4.024
343	123.2	25	1201	3.795	40	1210	3.880	55	1218	3.979	71	1228	4.063
342	121.5	24	1200	3.833	38	1209	3.920	53	1217	4.019	69	1226	4.105
341	119.9	23	1199	3.873	37	1208	3.960	52	1216	4.059	67	1225	4.145
340	118.4	21	1198	3.913	36	1207	4.000	50	1215	4.099	66	1224	4.188
339	116.8	20	1197	3.951	34	1206	4.040	49	1214	4.140	64	1222	4.230
338	115.2	18	1196	3.996	33	1205	4.080	47	1213	4.181	63	1221	4.275
337	113.7	17	1195	4.040	31	1203	4.120	46	1212	4.223	61	1220	4.320
336	112.2	16	1194	4.080	30	1202	4.165	44	1210	4.269	60	1219	4.365
335	110.7	14	1192	4.122	28	1201	4.209	43	1209	4.310	58	1218	4.410
334	109.2	13	1191	4.168	27	1200	4.250	41	1208	4.355	56	1216	4.458
333	107.7	11	1190	4.210	25	1198	4.295	40	1207	4.400	55	1215	4.503
332	106.3	10	1189	4.255	24	1197	4.343	38	1206	4.447	53	1214	4.551
331	104.8	9	1188	4.300	22	1196	4.390	37	1205	4.495	52	1213	4.600
330	103.4	7	1187	4.345	21	1195	4.435	35	1203	4.542	50	1212	4.646
329	102.0	6	1186	4.390	20	1194	4.485	34	1202	4.590	49	1211	4.695
328	100.6	4	1184	4.440	18	1193	4.533	32	1201	4.635	47	1209	4.747
327	99.2	3	1183	4.490	17	1192	4.583	31	1200	4.688	46	1208	4.799

Pressure, Pounds per Square Inch.	1.64			1.65			1.66			1.67		
	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
177.9	134	1271	3.142	152	1281	3.215	172	1291	3.287	191	1301	3.360
175.7	133	1270	3.171	151	1280	3.243	170	1290	3.315	189	1300	3.390
173.6	131	1269	3.200	149	1279	3.272	168	1288	3.345	187	1298	3.421
171.5	129	1267	3.230	147	1277	3.303	166	1287	3.377	185	1297	3.453
169.4	128	1266	3.260	146	1276	3.334	165	1286	3.409	183	1295	1.487
167.3	126	1265	3.290	144	1275	3.365	163	1285	3.440	181	1294	3.519
165.3	124	1264	3.320	142	1274	3.395	161	1283	3.470	180	1293	3.550
163.2	123	1263	3.350	141	1273	3.429	159	1282	3.503	178	1292	3.584
161.2	121	1261	3.383	139	1271	3.461	158	1281	3.538	176	1290	3.618
159.2	120	1260	3.414	137	1270	3.495	156	1280	3.570	174	1289	3.650
157.2	118	1259	3.447	135	1269	3.527	154	1278	3.604	172	1288	3.685
155.3	116	1258	3.480	134	1268	3.560	152	1277	3.638	171	1287	3.720
153.3	115	1257	3.512	132	1266	3.594	151	1276	3.673	169	1285	3.755
151.4	113	1255	3.545	130	1265	3.628	149	1275	3.707	167	1284	3.790
149.5	111	1254	3.580	129	1264	3.662	147	1273	3.740	165	1283	3.828
147.6	110	1253	3.615	127	1263	3.699	145	1272	3.779	163	1281	3.865
145.8	108	1252	3.650	125	1261	3.735	144	1271	3.813	162	1280	3.903
143.9	107	1251	3.685	124	1260	3.771	142	1269	3.850	160	1279	3.939
142.1	105	1249	3.720	122	1259	3.806	140	1268	3.886	158	1277	3.978
140.3	103	1248	3.757	120	1258	3.843	138	1267	3.931	156	1276	4.019
138.5	102	1247	3.795	119	1257	3.882	137	1266	3.970	154	1275	4.058
136.7	100	1246	3.832	117	1255	3.920	135	1264	4.010	153	1274	4.097
135.0	98	1244	3.870	115	1254	3.960	133	1263	4.050	151	1272	4.137
133.2	97	1243	3.910	114	1253	3.999	131	1262	4.090	149	1271	4.179
131.5	95	1242	3.949	112	1252	4.038	130	1261	4.130	147	1270	4.222
129.8	93	1241	3.990	100	1250	4.079	128	1259	4.172	145	1268	4.266
128.1	92	1240	4.030	109	1249	4.120	126	1258	4.215	144	1267	4.309
126.4	90	1238	4.070	107	1248	4.161	124	1257	4.258	142	1266	4.351
124.8	89	1237	4.110	105	1246	4.204	123	1256	4.300	140	1265	4.397
123.2	87	1236	4.152	104	1245	4.248	121	1254	4.345	138	1263	4.440
121.5	85	1235	4.198	102	1244	4.292	119	1253	4.392	136	1262	4.488
119.9	84	1234	4.240	100	1243	4.337	117	1252	4.440	135	1261	4.531
118.4	82	1232	4.284	99	1242	4.382	116	1251	4.486	133	1260	4.580
116.8	80	1231	4.330	97	1240	4.429	114	1249	4.533	131	1258	4.629
115.2	79	1230	4.375	95	1239	4.475	112	1248	4.580	129	1257	4.680
113.7	77	1229	4.420	93	1238	4.520	110	1246	4.630	127	1255	4.729
112.2	76	1228	4.465	92	1237	4.568	109	1245	4.677	126	1254	4.780
110.7	74	1226	4.510	90	1235	4.618	107	1244	4.725	124	1253	4.830
109.2	72	1225	4.560	88	1234	4.668	105	1243	4.773	122	1252	4.880
107.7	71	1224	4.607	87	1233	4.717	103	1241	4.820	120	1250	4.930
106.3	69	1223	4.655	85	1231	4.765	102	1240	4.870	118	1249	4.983
104.8	67	1221	4.705	83	1230	4.815	100	1239	4.920	116	1247	5.035
103.4	66	1220	4.755	82	1229	4.865	98	1237	4.970	115	1246	5.090
102.0	64	1219	4.805	80	1228	4.917	96	1236	5.020	113	1245	5.143
100.6	63	1218	4.855	78	1226	4.969	95	1235	5.072	111	1244	5.198
99.2	61	1217	4.905	77	1225	5.023	93	1234	5.125	109	1242	5.253
97.8	59	1215	4.960	75	1224	5.077	91	1232	5.178	107	1241	5.309

Temperature, Degrees Fahr	Pressure, Pounds per Square Inch.	1.60			1.61			1.62			1.63		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	9991	1180.0	4.614	12	1188	4.737	26	1196	4.845	41	1205	4.955
323	93.8	9982	1178.9	4.670	11	1187	4.790	25	1195	4.900	29	1203	5.010
322	92.5	9973	1177.8	4.728	9	1186	4.845	23	1194	4.955	38	1202	5.066
321	91.2	9964	1176.6	4.786	8	1185	4.900	22	1193	5.010	36	1201	5.123
320	90.0	9956	1175.6	4.846	7	1184	4.957	20	1192	5.064	35	1200	5.179
319	88.7	9946	1174.4	4.904	5	1182	5.012	19	1191	5.122	33	1199	5.236
318	87.4	9937	1173.3	4.965	4	1181	5.068	17	1189	5.178	31	1197	5.294
317	86.2	9927	1172.1	5.027	2	1180	5.125	16	1188	5.237	30	1196	5.351
316	85.0	9917	1170.9	5.089	1	1179	5.182	14	1187	5.295	28	1195	5.410
315	83.8	9909	1169.8	5.153	9995	1177.5	5.199	13	1186	5.353	27	1194	5.470
314	82.6	9899	1168.7	5.219	9986	1176.4	5.265	11	1184	5.412	25	1193	5.530
313	81.4	9890	1167.6	5.284	9976	1175.3	5.330	10	1183	5.473	24	1192	5.590
312	80.2	9880	1166.4	5.351	9967	1174.1	5.398	8	1182	5.537	22	1190	5.655
311	79.1	9871	1165.3	5.419	9957	1173.0	5.466	7	1181	5.599	20	1189	5.718
310	77.9	9862	1164.1	5.487	9948	1171.8	5.535	5	1180	5.663	19	1188	5.780
309	76.8	9852	1163.0	5.557	9938	1170.6	5.605	4	1179	5.729	17	1186	5.850
308	75.7	9843	1161.8	5.628	9928	1169.5	5.677	2	1177	5.793	16	1185	5.910
307	74.6	9833	1160.6	5.701	9919	1168.3	5.751	1	1176	5.860	14	1184	5.980
306	73.5	9825	1159.5	5.775	9910	1167.2	5.825	9995	1174.8	5.875	13	1183	6.04
305	72.4	9814	1158.3	5.848	9899	1165.9	5.899	9984	1173.6	5.950	11	1182	6.11
304	71.4	9805	1157.1	5.924	9890	1164.8	5.975	9974	1172.4	6.026	10	1181	6.18
303	70.3	9796	1156.0	6.001	9881	1163.7	6.053	9965	1171.3	6.105	8	1179	6.25
302	69.3	9787	1154.9	6.080	9871	1162.5	6.133	9956	1170.1	6.185	6	1178	6.33
301	68.2	9778	1153.7	6.160	9862	1161.3	6.213	9947	1168.9	6.266	5	1177	6.40
300	67.2	9769	1152.5	6.240	9853	1160.1	6.294	9937	1167.7	6.348	3	1175	6.48
299	66.2	9760	1151.4	6.323	9844	1159.0	6.378	9928	1166.6	6.432	2	1174	6.57
298	65.2	9750	1150.2	6.407	9834	1157.8	6.462	9918	1165.4	6.517	0	1173	6.65
297	64.3	9741	1149.0	6.492	9824	1156.6	6.548	9908	1164.2	6.603	9991	1171.7	6.659
296	63.3	9731	1147.8	6.578	9814	1155.4	6.634	9898	1162.9	6.691	9981	1170.5	6.747
295	62.3	9722	1146.7	6.667	9805	1154.3	6.724	9889	1161.8	6.781	9972	1169.3	6.838
294	61.4	9713	1145.5	6.756	9796	1153.1	6.814	9879	1160.6	6.872	9962	1168.1	6.929
293	60.5	9704	1144.4	6.847	9787	1151.9	6.906	9870	1159.4	6.964	9952	1166.9	7.022
292	59.5	9694	1143.2	6.940	9777	1150.7	6.999	9859	1158.2	7.058	9942	1165.7	7.118
291	58.6	9685	1142.0	7.034	9768	1149.6	7.093	9850	1157.1	7.153	9933	1164.5	7.213
290	57.7	9676	1140.9	7.129	9758	1148.4	7.189	9840	1155.9	7.249	9923	1163.3	7.310
289	56.8	9667	1139.7	7.227	9749	1147.2	7.287	9831	1154.7	7.349	9913	1162.1	7.410
288	56.0	9656	1138.5	7.326	9738	1146.0	7.387	9820	1153.5	7.449	9902	1160.9	7.512
287	55.1	9647	1137.3	7.426	9729	1144.8	7.488	9811	1152.3	7.551	9893	1159.7	7.614
286	54.2	9638	1136.2	7.529	9720	1143.6	7.591	9802	1151.1	7.655	9883	1158.5	7.719
285	53.4	9629	1135.0	7.633	9711	1142.4	7.697	9792	1159.9	7.761	9874	1157.3	7.826
284	52.6	9619	1133.8	7.737	9700	1141.2	7.802	9781	1148.6	7.867	9863	1156.1	7.932
283	51.7	9610	1132.6	7.844	9691	1140.0	7.910	9772	1147.4	7.976	9853	1154.9	8.042
282	50.9	9601	1131.4	7.955	9682	1138.8	8.022	9763	1146.2	8.088	9844	1153.7	8.155
281	50.1	9593	1130.3	8.069	9674	1137.6	8.137	9754	1145.1	8.203	9835	1152.5	8.271
280	49.33	9584	1129.1	8.182	9664	1136.5	8.251	9745	1143.9	8.318	9826	1151.3	8.387

Temperature Degrees F	Pressure, Po per Squar Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	56	1213	5.065	72	1222	5.185	88	1230	5.295	104	1239	5.420
323	93.8	54	1211	5.119	70	1220	5.237	86	1229	5.350	102	1237	5.478
322	92.5	53	1210	5.173	68	1219	5.297	84	1227	5.405	100	1236	5.533
321	91.2	51	1209	5.230	67	1228	5.357	83	1226	5.465	98	1234	5.590
320	90.0	50	1208	5.289	65	1227	5.415	81	1225	5.530	97	1233	5.650
319	88.7	48	1207	5.347	63	1225	5.475	79	1224	5.590	95	1232	5.710
318	87.4	46	1206	5.405	61	1224	5.535	77	1222	5.650	93	1231	5.770
317	86.2	45	1205	5.465	60	1223	5.595	76	1221	5.715	91	1229	5.835
316	85.0	43	1203	5.520	58	1221	5.655	74	1220	5.780	89	1228	5.900
315	83.8	41	1202	5.585	56	1220	5.715	72	1218	5.840	88	1226	5.965
314	82.6	40	1201	5.645	55	1209	5.779	70	1217	5.900	86	1225	6.03
313	81.4	38	1199	5.705	53	1208	5.840	68	1216	5.965	84	1224	6.10
312	80.2	36	1198	5.767	51	1206	5.905	67	1215	6.035	82	1223	6.17
311	79.1	35	1197	5.830	50	1205	5.970	65	1213	6.10	80	1221	6.24
310	77.9	33	1196	5.899	48	1204	6.035	63	1212	6.18	79	1220	6.31
309	76.8	32	1195	5.966	46	1202	6.10	61	1210	6.25	77	1219	6.39
308	75.7	30	1193	6.04	45	1201	6.17	60	1209	6.31	75	1218	6.46
307	74.6	28	1192	6.10	43	1200	6.24	58	1208	6.39	73	1216	6.53
306	73.5	27	1191	6.17	41	1199	6.32	57	1207	6.46	71	1215	6.60
305	72.4	25	1190	6.25	40	1198	6.39	55	1206	6.54	70	1214	6.67
304	71.4	23	1188	6.33	38	1196	6.46	53	1204	6.61	68	1213	6.75
303	70.3	22	1187	6.40	36	1195	6.54	51	1203	6.69	66	1211	6.84
302	69.3	20	1186	6.47	35	1194	6.62	50	1202	6.76	64	1210	6.92
301	68.2	19	1185	6.55	33	1193	6.70	48	1201	6.84	62	1208	6.99
300	67.2	17	1183	6.63	31	1191	6.77	46	1199	6.92	61	1207	7.07
299	66.2	15	1182	6.70	30	1190	6.85	44	1198	7.00	59	1206	7.15
298	65.2	14	1181	6.79	28	1189	6.93	43	1197	7.08	57	1205	7.24
297	64.3	12	1179	6.87	26	1188	7.01	41	1196	7.16	55	1203	7.33
296	63.3	10	1178	6.94	25	1187	7.10	39	1194	7.24	54	1202	7.40
295	62.3	9	1177	7.03	23	1185	7.19	37	1193	7.33	52	1201	7.49
294	61.4	7	1176	7.12	21	1184	7.27	36	1192	7.41	50	1200	7.58
293	60.5	6	1175	7.20	20	1183	7.35	34	1191	7.50	48	1198	7.67
292	59.5	4	1173	7.29	18	1181	7.44	32	1189	7.59	46	1197	7.76
291	58.6	2	1172	7.38	16	1180	7.53	30	1188	7.68	44	1196	7.85
290	57.7	1	1171	7.46	14	1178	7.63	29	1187	7.77	43	1195	7.95
289	56.8	9995	1169.5	7.471	13	1177	7.72	27	1185	7.86	41	1193	8.04
288	56.0	9984	1168.3	7.574	11	1176	7.81	25	1184	7.96	39	1192	8.14
287	55.1	9974	1167.1	7.677	9	1175	7.91	23	1183	8.05	37	1190	8.24
286	54.2	9965	1166.0	7.782	8	1174	8.00	22	1182	8.15	36	1189	8.33
285	53.4	9955	1165.7	7.890	6	1172	8.10	20	1180	8.25	34	1188	8.43
284	52.6	9944	1163.4	7.998	4	1171	8.20	18	1179	8.35	32	1187	8.54
283	51.7	9934	1162.2	8.108	3	1170	8.30	16	1178	8.45	30	1185	8.64
282	50.9	9924	1161.1	8.222	1	1169	8.39	15	1177	8.56	29	1184	8.74
281	50.1	9916	1159.9	8.339	9997	1167.4	8.407	13	1175	8.66	27	1183	8.84
280	49.33	9906	1158.7	8.456	9987	1166.1	8.525	11	1174	8.77	25	1182	8.95
279	48.55	9895	1157.4	8.573	9975	1164.8	8.642	9	1172	8.88	23	1180	9.05
278	47.77	9885	1156.1	8.695	9965	1163.5	8.765	8	1171	8.99	21	1179	9.17
277	47.01	9875	1154.9	8.819	9955	1162.3	8.890	6	1170	9.10	20	1178	9.29

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.60			1.61			1.62			1.63		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
276	46.26	9546	1124.3	8.655	9626	1131.7	8.728	9706	1139.0	8.799	9786	1146.4	8.872
275	45.52	9536	1123.1	8.778	9616	1130.5	8.851	9695	1137.8	8.924	9775	1145.2	8.997
274	44.78	9527	1121.9	8.904	9606	1129.2	8.978	9686	1136.5	9.051	9765	1143.9	9.126
273	44.06	9518	1120.7	9.032	9597	1128.0	9.108	9676	1135.3	9.182	9756	1142.7	9.257
272	43.35	9509	1119.5	9.164	9588	1126.8	9.241	9667	1134.1	9.316	9746	1141.5	9.392
271	42.64	9499	1118.3	9.296	9579	1125.6	9.374	9658	1132.9	9.450	9737	1140.2	9.527
270	41.95	9489	1117.1	9.431	9568	1124.3	9.509	9647	1131.6	9.586	9726	1138.9	9.665
269	41.26	9480	1115.9	9.567	9559	1123.2	9.646	9638	1130.4	9.724	9716	1137.7	9.804
268	40.58	9471	1114.7	9.709	9550	1122.0	9.789	9628	1129.2	9.869	9707	1136.5	9.949
267	39.91	9462	1113.5	9.851	9540	1120.8	9.932	9619	1128.0	10.02	9697	1135.3	10.09
266	39.26	9452	1112.2	9.991	9530	1119.5	10.07	9608	1126.7	10.16	9686	1134.0	10.24
265	38.60	9442	1111.0	10.14	9520	1118.3	10.22	9598	1125.5	10.31	9676	1132.8	10.39
264	37.96	9433	1109.8	10.29	9511	1117.0	10.38	9589	1124.3	10.46	9667	1131.5	10.55
263	37.33	9424	1108.6	10.44	9502	1115.8	10.53	9579	1123.1	10.61	9657	1130.3	10.70
262	36.71	9415	1107.4	10.60	9492	1114.6	10.69	9570	1121.8	10.78	9647	1129.1	10.86
261	36.09	9406	1106.2	10.76	9484	1113.4	10.85	9561	1120.6	10.94	9638	1127.9	11.03
260	35.48	9397	1105.0	10.92	9474	1112.2	11.01	9551	1119.4	11.10	9629	1126.6	11.19
259	34.88	9387	1103.8	11.09	9464	1109.9	11.18	9541	1118.1	11.27	9618	1125.3	11.36
258	34.29	9377	1102.5	11.25	9454	1109.6	11.35	9531	1116.8	11.44	9608	1124.0	11.53
257	33.71	9369	1101.3	11.42	9445	1108.5	11.52	9522	1115.6	11.61	9599	1122.8	11.70
256	33.14	9359	1100.1	11.60	9436	1107.3	11.69	9512	1114.4	11.79	9589	1121.6	11.88
255	32.57	9349	1098.9	11.78	9425	1106.0	11.88	9502	1113.1	11.97	9578	1120.3	12.07
254	32.01	9340	1097.6	11.96	9416	1104.7	12.06	9492	1111.8	12.16	9568	1119.0	12.26
253	31.46	9330	1096.4	12.15	9406	1103.5	12.25	9482	1110.6	12.34	9558	1117.8	12.44
252	30.92	9322	1095.2	12.34	9397	1102.3	12.44	9473	1109.4	12.54	9549	1116.5	12.64
251	30.38	9312	1094.0	12.53	9388	1101.1	12.64	9463	1108.2	12.74	9539	1115.3	12.84
250	29.86	9303	1092.7	12.73	9378	1099.8	12.83	9454	1106.9	12.93	9529	1114.0	13.04
249	29.34	9293	1091.5	12.93	9368	1098.6	13.03	9444	1105.6	13.14	9519	1112.7	13.24
248	28.82	9283	1090.2	13.13	9359	1097.3	13.23	9434	1104.3	13.34	9509	1111.4	13.44
247	28.32	9275	1089.0	13.33	9350	1096.1	13.44	9425	1103.1	13.54	9500	1110.2	13.65
246	27.82	9265	1087.8	13.54	9340	1094.8	13.65	9415	1101.9	13.76	9490	1108.9	13.86
245	27.33	9256	1086.6	13.74	9330	1093.6	13.85	9405	1100.7	13.96	9480	1107.7	14.07
244	26.85	9247	1085.3	13.97	9321	1092.4	14.08	9396	1099.4	14.20	9470	1106.4	14.31
243	26.37	9237	1084.1	14.20	9312	1091.2	14.31	9386	1098.2	14.43	9460	1105.2	14.54
242	25.90	9228	1082.9	14.42	9303	1089.9	14.54	9377	1096.9	14.66	9451	1103.9	14.77
241	25.44	9219	1081.6	14.66	9293	1088.6	14.78	9367	1095.6	14.89	9441	1102.6	15.01
240	24.98	9210	1080.3	14.89	9284	1087.3	15.01	9358	1094.3	15.13	9432	1101.3	15.25
239	24.53	9200	1079.1	15.13	9274	1086.1	15.26	9348	1093.1	15.38	9421	1100.1	15.50
238	24.09	9191	1077.8	15.39	9265	1084.8	15.51	9339	1091.8	15.63	9412	1098.8	15.76
237	23.66	9182	1076.6	15.64	9255	1083.6	15.76	9329	1090.6	15.89	9402	1097.5	16.01
236	23.23	9173	1075.4	15.90	9246	1082.3	16.02	9319	1089.3	16.15	9393	1096.2	16.28
235	22.80	9163	1074.1	16.15	9236	1081.0	16.28	9309	1088.0	16.41	9382	1094.9	16.54
234	22.39	9153	1072.8	16.42	9226	1079.7	16.55	9299	1086.6	16.68	9372	1093.6	16.81
233	21.98	9144	1071.6	16.70	9217	1078.5	16.83	9290	1085.4	16.96	9362	1092.3	17.10
232	21.57	9134	1070.3	16.97	9207	1077.2	17.11	9280	1084.1	17.24	9352	1091.0	17.38
231	21.18	9125	1069.1	17.26	9198	1076.0	17.39	9270	1082.9	17.53	9343	1089.8	17.67
230	20.78	9116	1067.8	17.54	9189	1074.7	17.68	9261	1081.6	[illegible]	[illegible]	[illegible]	[illegible]

Temperature, Degrees Fah	Pressure, Pounds per Square Inch.	1.64			1.65			1.66			
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
276	46.26	9866	1153.7	8.944	9945	1161.1	9.016	4	1168	9.22	18
275	45.52	9855	1152.5	9.070	9934	1159.8	9.144	2	1167	9.33	16
274	44.78	9845	1151.2	9.200	9924	1158.5	9.274	1	1166	9.45	14
273	44.06	9835	1150.0	9.333	9915	1157.3	9.408	9994	1164.6	9.483	12
272	43.35	9825	1148.8	9.469	9905	1156.1	9.545	9984	1163.4	9.621	11
271	42.64	9816	1147.5	9.605	9895	1154.8	9.682	9974	1162.1	9.759	9
270	41.95	9805	1146.2	9.743	9884	1153.5	9.821	9962	1160.8	9.900	7
269	41.26	9795	1145.0	9.883	9874	1152.3	9.962	9952	1159.6	10.04	5
268	40.58	9785	1143.8	10.03	9864	1151.1	10.11	9942	1158.3	10.19	3
267	39.91	9775	1142.5	10.18	9854	1149.8	10.26	9932	1157.0	10.34	2
266	39.26	9764	1141.2	10.32	9842	1148.5	10.40	9921	1155.7	10.49	9999
265	38.60	9754	1140.0	10.48	9832	1147.3	10.56	9910	1154.5	10.64	9988
264	37.96	9744	1138.7	10.63	9822	1146.0	10.72	9900	1153.2	10.80	9978
263	37.33	9735	1137.5	10.79	9812	1144.8	10.87	9890	1152.0	10.96	9968
262	36.71	9725	1136.3	10.95	9802	1143.5	11.04	9880	1150.7	11.12	9957
261	36.09	9716	1135.1	11.11	9793	1142.3	11.20	9870	1149.5	11.29	9948
260	35.48	9706	1133.8	11.28	9783	1141.0	11.37	9860	1148.2	11.46	9937
259	34.88	9695	1132.5	11.45	9772	1139.7	11.54	9849	1146.9	11.63	9926
258	34.29	9685	1131.2	11.62	9762	1138.3	11.71	9838	1145.5	11.81	9915
257	33.71	9676	1130.0	11.80	9752	1137.1	11.89	9829	1144.3	11.98	9906
256	33.14	9665	1128.7	11.98	9742	1135.9	12.07	9819	1143.0	12.17	9895
255	32.57	9654	1127.4	12.16	9731	1134.6	12.26	9807	1141.7	12.36	9883
254	32.01	9644	1126.1	12.35	9721	1133.2	12.45	9797	1140.4	12.55	9873
253	31.46	9634	1124.9	12.54	9710	1132.0	12.64	9786	1139.2	12.74	9862
252	30.92	9625	1123.6	12.74	9701	1130.7	12.84	9777	1137.9	12.94	9853
251	30.38	9615	1122.4	12.94	9691	1129.5	13.04	9766	1136.6	13.15	9842
250	29.86	9605	1121.1	13.14	9680	1128.2	13.24	9756	1135.3	13.35	9831
249	29.34	9594	1119.8	13.35	9670	1126.9	13.45	9745	1134.0	13.56	9820
248	28.82	9584	1118.5	13.55	9659	1125.6	13.66	9735	1132.6	13.76	9810
247	28.32	9575	1117.3	13.76	9650	1124.3	13.87	9725	1131.4	13.97	9800
246	27.82	9565	1116.0	13.97	9639	1123.0	14.08	9714	1130.1	14.19	9789
245	27.33	9554	1114.8	14.18	9629	1121.8	14.29	9704	1128.8	14.40	9779
244	26.85	9545	1113.5	14.42	9620	1120.5	14.54	9694	1127.5	14.65	9769
243	26.37	9535	1112.2	14.65	9609	1119.2	14.77	9684	1126.3	14.88	9758
242	25.90	9525	1110.9	14.89	9600	1117.9	15.00	9674	1125.0	15.12	9748
241	25.44	9515	1109.6	15.13	9589	1116.6	15.25	9663	1123.7	15.36	9737
240	24.98	9506	1108.3	15.37	9579	1115.3	15.49	9653	1122.3	15.61	9727
239	24.53	9495	1107.0	15.62	9569	1114.0	15.74	9643	1121.0	15.86	9716
238	24.09	9486	1105.7	15.88	9559	1112.7	16.00	9633	1119.7	16.13	9706
237	23.66	9475	1104.5	16.14	9549	1111.4	16.26	9622	1118.4	16.39	9696
236	23.23	9466	1103.2	16.40	9539	1110.1	16.53	9612	1117.1	16.66	9686
235	22.80	9455	1101.9	16.67	9529	1108.8	16.80	9602	1115.8	16.93	9675
234	22.39	9445	1100.5	16.94	9518	1107.4	17.07	9591	1114.4	17.21	9664
233	21.98	9435	1099.2	17.23	9508	1106.1	17.36	9581	1113.1	17.49	9654
232	21.57	9425	1097.9	17.51	9497	1104.8	17.65	9570	1111.8	17.78	9643
231	21.18	9415	1096.7	17.80	9488	1103.6	17.94	9560	1110.5	18.08	9633

Temperatur Degrees F	Pressure, Po per Squar Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	
228	20.02	9097	1065.2	18.13	9169	1072.1	18.27	9241	1079.0	18.42	9313	10
227	19.64	9087	1064.0	18.44	9159	1070.9	18.58	9231	1077.7	18.73	9303	10
226	19.28	9078	1062.7	18.76	9150	1069.6	18.91	9221	1076.4	19.06	9293	10
225	18.91	9068	1061.5	19.08	9140	1068.3	19.23	9211	1075.1	19.38	9283	10
224	18.56	9059	1060.2	19.40	9130	1067.0	19.56	9202	1073.8	19.71	9273	10
223	18.21	9050	1059.0	19.74	9121	1065.8	19.89	9192	1072.6	20.05	9264	10
222	17.86	9041	1057.7	20.07	9112	1064.5	20.23	9183	1071.3	20.39	9254	10
221	17.52	9032	1056.5	20.42	9103	1063.3	20.58	9174	1070.1	20.74	9245	10
220	17.19	9023	1055.2	20.78	9094	1062.0	20.94	9165	1068.8	21.11	9235	10
219	16.86	9013	1053.9	21.15	9084	1060.7	21.31	9154	1067.4	21.48	9225	10
218	16.53	9003	1052.6	21.52	9073	1059.3	21.69	9144	1066.0	21.85	9214	10
217	16.21	8994	1051.3	21.89	9064	1058.0	22.06	9134	1064.8	22.23	9205	10
216	15.90	8984	1050.0	22.27	9055	1056.7	22.45	9125	1063.5	22.62	9195	10
215	15.59	8975	1048.7	22.66	9045	1055.4	22.84	9115	1062.2	23.02	9185	10
214	15.29	8966	1047.4	23.07	9036	1054.1	23.25	9105	1060.9	23.43	9175	10
213	14.99	8956	1046.2	23.47	9026	1052.9	23.66	9096	1059.6	23.84	9165	10
212	14.70	8947	1044.9	23.85	9017	1051.6	24.04	9086	1058.3	24.22	9156	10
211	14.41	8938	1043.6	24.23	9007	1050.3	24.42	9076	1057.0	24.61	9146	10
210	14.12	8928	1042.3	24.67	8997	1049.0	24.86	9067	1055.7	25.05	9136	10
209	13.84	8919	1041.0	25.11	8988	1047.7	25.31	9057	1054.3	25.50	9126	10
208	13.57	8909	1039.7	25.57	8978	1046.4	25.77	9047	1053.0	25.96	9116	10
207	13.29	8900	1038.4	26.04	8968	1045.0	26.24	9037	1051.7	26.44	9106	10
206	13.03	8890	1037.1	26.52	8959	1043.7	26.72	9027	1050.4	26.93	9096	10
205	12.77	8881	1035.8	27.00	8949	1042.4	27.21	9018	1049.1	27.41	9086	10
204	12.51	8871	1034.5	27.49	8939	1041.1	27.70	9008	1047.8	27.92	9076	10
203	12.25	8862	1033.2	27.99	8930	1039.8	28.21	8998	1046.4	28.42	9066	10
202	12.01	8853	1031.9	28.51	8921	1038.6	28.72	8989	1045.2	28.94	9057	10
201	11.76	8844	1030.6	29.04	8912	1037.2	29.27	8980	1043.8	29.49	9048	10
200	11.52	8835	1029.3	29.58	8902	1035.9	29.80	8970	1042.5	30.03	9038	10
199	11.28	8825	1028.0	30.13	8893	1034.6	30.36	8960	1041.2	30.59	9028	10
198	11.05	8816	1026.7	30.69	8883	1033.3	30.92	8951	1039.9	31.16	9018	10
197	10.82	8806	1025.3	31.26	8873	1031.9	31.50	8940	1038.4	31.74	9007	10
196	10.60	8796	1024.0	31.85	8863	1030.5	32.09	8930	1037.1	32.34	8997	10
195	10.38	8787	1022.7	32.46	8854	1029.3	32.71	8921	1035.8	32.95	8988	10
194	10.16	8777	1021.4	33.07	8844	1027.9	33.32	8911	1034.5	33.58	8977	10
193	9.95	8768	1020.1	33.70	8835	1026.6	33.96	8901	1033.2	34.22	8968	10
192	9.74	8758	1018.8	34.35	8825	1025.3	34.61	8891	1031.8	34.87	8958	10
191	9.53	8749	1017.4	35.00	8815	1023.9	35.27	8881	1030.4	35.53	8948	10
190	9.33	8740	1016.2	35.68	8806	1022.6	35.95	8872	1029.1	36.22	8938	10
189	9.13	8730	1014.9	36.37	8796	1021.4	36.65	8863	1027.8	36.92	8929	10
188	8.94	8721	1013.5	37.07	8787	1020.0	37.35	8852	1026.5	37.63	8918	10
187	8.75	8712	1012.2	37.79	8777	1018.7	38.08	8843	1025.2	38.36	8909	10
186	8.56	8702	1010.9	38.53	8767	1017.3	38.82	8833	1023.8	39.11	8898	10
185	8.37	8693	1009.6	39.29	8758	1016.0	39.59	8823	1022.5	39.88	8889	10
184	8.19	8683	1008.2	40.07	8748	1014.6	40.37	8813	1021.1	40.67	8878	10
183	8.01	8673	1006.9	40.86	8739	1013.3	41.17	8804	1019.8	41.47	8869	10
182	7.84	8664	1005.6	41.67	8729	1012.0	41.98	8794	1018.4	42.29	8859	10

1.64			1.65			1.66			1.67		
Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
9385	1092.7	18.70	9457	1099.6	18.85	9529	1106.5	18.99	9601	1113.3	19.13
9375	1091.4	19.02	9446	1098.3	19.17	9518	1105.2	19.31	9590	1112.0	19.46
9365	1090.1	19.36	9436	1097.0	19.51	9508	1103.9	19.65	9580	1110.7	19.80
9354	1088.8	19.68	9426	1095.7	19.83	9497	1102.6	19.98	9569	1109.4	20.13
9345	1087.5	20.02	9416	1094.3	20.17	9487	1101.2	20.26	9559	1108.0	20.47
9335	1086.2	20.36	9406	1093.1	20.51	9477	1099.9	20.67	9548	1106.7	20.82
9325	1084.9	20.70	9396	1091.8	20.86	9467	1098.6	21.02	9538	1105.4	21.17
9316	1083.6	21.06	9387	1090.5	21.22	9458	1097.3	21.38	9529	1104.1	21.54
9306	1082.3	21.43	9377	1089.1	21.60	9448	1095.9	21.76	9518	1102.7	21.92
9296	1081.0	21.81	9366	1087.8	21.97	9437	1094.5	22.14	9507	1101.3	22.30
9285	1079.6	22.19	9355	1086.4	22.36	9426	1093.1	22.53	9496	1099.9	22.70
9275	1078.3	22.57	9345	1085.1	22.75	9415	1091.8	22.92	9486	1098.6	23.09
9265	1077.0	22.97	9335	1083.7	23.14	9405	1090.5	23.32	9475	1097.2	23.49
9255	1075.7	23.37	9325	1082.4	23.55	9395	1089.2	23.72	9465	1095.9	23.90
9245	1074.4	23.79	9315	1081.1	23.97	9385	1087.8	24.15	9454	1094.6	24.33
9235	1073.1	24.20	9305	1079.8	24.39	9374	1086.5	24.57	9444	1093.3	24.75
9225	1071.7	24.59	9295	1078.4	24.78	9364	1085.1	24.96	9434	1091.9	25.15
9215	1070.4	24.98	9284	1077.1	25.17	9354	1083.8	25.36	9423	1090.6	25.55
9205	1069.1	25.43	9274	1075.8	25.62	9343	1082.5	25.82	9413	1089.2	26.01
9195	1067.7	25.89	9264	1074.4	26.09	9333	1081.1	26.28	9402	1087.8	26.48
9185	1066.4	26.36	9254	1073.1	26.56	9322	1079.7	26.76	9391	1086.4	26.95
9175	1065.0	26.84	9243	1071.7	27.05	9312	1078.4	27.25	9381	1085.0	27.45
9165	1063.7	27.34	9233	1070.4	27.54	9302	1077.0	27.75	9370	1083.7	27.95
9154	1062.4	27.83	9223	1069.0	28.04	9291	1075.7	28.25	9360	1082.3	28.45
9144	1061.0	28.34	9213	1067.7	28.55	9281	1074.3	28.76	9349	1080.9	28.97
9134	1059.7	28.85	9202	1066.3	29.07	9270	1072.9	29.29	9338	1079.6	29.50
9125	1058.4	29.38	9193	1065.0	29.60	9261	1071.6	29.82	9329	1078.2	30.04
9115	1057.0	29.94	9183	1063.6	30.16	9251	1070.3	30.38	9319	1076.9	30.60
9105	1055.7	30.48	9173	1062.3	30.71	9241	1068.9	30.94	9308	1075.5	31.16
9095	1054.3	31.05	9163	1060.9	31.28	9230	1067.5	31.51	9298	1074.1	31.74
9086	1053.0	31.63	9153	1059.6	31.86	9220	1066.2	32.10	9288	1072.8	32.33
9074	1051.6	32.21	9142	1058.1	32.45	9209	1064.7	32.69	9276	1071.3	32.93
9064	1050.2	32.82	9131	1056.8	33.06	9198	1063.3	33.31	9265	1069.9	33.55
9054	1048.9	33.45	9121	1055.4	33.69	9188	1062.0	33.94	9255	1068.5	34.19
9044	1047.5	34.08	9111	1054.1	34.33	9178	1060.6	34.58	9244	1067.1	34.83
9035	1046.2	34.73	9101	1052.7	34.98	9168	1059.3	35.24	9234	1065.8	35.50
9024	1044.8	35.39	9091	1051.4	35.65	9157	1057.9	35.91	9224	1064.4	36.18
9014	1043.5	36.06	9080	1050.0	36.33	9147	1056.5	36.60	9213	1063.0	36.86
9004	1042.1	36.76	9070	1048.6	37.03	9137	1055.1	37.30	9203	1061.6	37.57
8995	1040.8	37.47	9061	1047.3	37.75	9127	1053.8	38.02	9193	1060.3	38.30
8984	1039.4	38.19	9050	1045.9	38.47	9116	1052.4	38.75	9182	1058.8	39.03
8974	1038.1	38.93	9040	1044.6	39.22	9106	1051.0	39.50	9172	1057.5	39.79
8964	1036.7	39.69	9030	1043.1	39.98	9095	1049.6	40.27	9161	1056.1	40.56
8954	1035.4	40.47	9020	1041.8	40.77	9085	1048.2	41.06	9150	1054.7	41.36
8944	1034.0	41.28	9009	1040.4	41.58	9074	1046.8	41.88	9140	1053.2	42.18
8934	1032.6	42.09	8999	1039.0	42.39	9064	1045.5	42.70	9129	1051.9	43.01
8924	1031.3	42.91	8989	1037.7	43.23	9054	1044.1	43.54	9119	1050.5	43.85

Temperature, Degrees Fahr	Pressure, Pound per Square Inch.	1.60			1.61			[illegible]					
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	8645	1002.8	43.35	8710	1009.2	43.67	8774	1015.6	43.99	8839	1022.0	44.32
179	7.34	8636	1001.5	44.21	8700	1007.9	44.54	8765	1014.3	44.87	8829	1020.7	45.20
178	7.17	8626	1000.2	45.09	8691	1006.6	45.43	8755	1012.9	45.76	8820	1019.3	46.10
177	7.01	8617	998.9	46.01	8681	1005.2	46.35	8746	1011.6	46.69	8810	1018.0	47.04
176	6.86	8607	997.5	46.94	8671	1003.8	47.29	8735	1010.2	47.64	8799	1016.5	47.99
175	6.70	8598	996.1	47.89	8662	1002.5	48.25	8726	1008.8	48.60	8790	1015.2	48.96
174	6.55	8588	994.8	48.87	8652	1001.2	49.23	8716	1007.5	49.59	8780	1013.8	49.96
173	6.41	8579	993.5	49.87	8643	999.8	50.24	8706	1006.1	50.61	8770	1012.5	50.98
172	6.26	8569	992.1	50.89	8633	998.5	51.27	8696	1004.8	51.65	8760	1011.1	52.03
171	6.12	8559	990.7	51.93	8623	997.0	52.31	8686	1003.4	52.70	8749	1009.7	53.08
170	5.98	8550	989.4	53.01	8613	995.7	53.40	8676	1002.0	53.79	8740	1008.3	54.19
169	5.84	8540	988.1	54.12	8603	994.3	54.52	8667	1000.6	54.92	8730	1006.9	55.32
168	5.71	8531	986.7	55.25	8594	993.0	55.66	8657	999.3	56.07	8720	1005.5	56.48
167	5.58	8521	985.3	56.42	8584	991.6	56.84	8647	997.9	57.25	8710	1004.1	57.67
166	5.45	8512	984.0	57.60	8574	990.2	58.02	8637	996.5	58.45	8700	1002.8	58.87
165	5.32	8502	982.6	58.81	8565	988.9	59.24	8627	995.1	59.67	8690	1001.4	60.11
164	5.20	8493	981.3	60.06	8555	987.5	60.50	8617	993.7	60.94	8680	1000.0	61.38
163	5.08	8483	979.9	61.33	8545	986.1	61.78	8607	992.4	62.23	8670	998.6	62.68
162	4.960	8473	978.5	62.64	8536	984.7	63.10	8598	991.0	63.56	8660	997.2	64.02
161	4.844	8465	977.2	64.00	8527	983.4	64.47	8589	989.6	64.93	8651	995.8	65.40
160	4.729	8456	975.8	65.37	8517	982.0	65.85	8579	988.2	66.33	8641	994.4	66.80
159	4.617	8446	974.5	66.78	8508	980.7	67.27	8569	986.8	67.76	8631	993.0	68.24
158	4.508	8436	973.1	68.23	8498	979.3	68.73	8559	985.4	69.23	8621	991.6	69.72
157	4.400	8427	971.8	69.73	8489	977.9	70.23	8550	984.1	70.74	8611	990.3	71.25
156	4.295	8417	970.4	71.26	8479	976.5	71.78	8540	982.7	72.30	8601	988.8	72.82
155	4.191	8408	969.0	72.82	8469	975.1	73.35	8530	981.3	73.88	8591	987.4	74.41
154	4.090	8398	967.6	74.42	8459	973.7	74.96	8520	979.9	75.50	8581	986.0	76.04
153	3.991	8389	966.2	76.07	8450	972.4	76.62	8510	978.5	77.17	8571	984.6	77.72
152	3.894	8379	964.8	77.76	8440	971.0	78.33	8500	977.1	78.89	8561	983.2	79.45
151	3.799	8369	963.4	79.50	8430	969.5	80.07	8490	975.7	80.65	8551	981.8	81.22
150	3.706	8360	962.1	81.29	8420	968.2	81.88	8480	974.3	82.47	8541	980.4	83.05
149	3.615	8350	960.7	83.12	8410	966.8	83.72	8470	972.9	84.31	8531	978.9	84.91
148	3.526	8341	959.3	84.99	8401	965.4	85.60	8461	971.5	86.22	8521	977.6	86.83
147	3.439	8331	957.9	86.89	8391	964.0	87.52	8451	970.0	88.14	8511	976.1	88.77
146	3.353	8322	956.6	88.87	8381	962.6	89.51	8441	968.7	90.15	8501	974.7	90.79
145	3.270	8312	955.1	90.93	8371	961.2	91.59	8431	967.2	92.24	8491	973.3	92.89
144	3.188	8302	953.8	92.99	8362	959.8	93.65	8421	965.8	94.32	8481	971.9	94.99
143	3.108	8292	952.3	95.11	8352	958.4	95.79	8411	964.4	96.47	8470	970.4	97.16
142	3.029	8283	951.0	97.32	8342	957.0	98.02	8401	963.0	98.72	8461	969.0	99.41
141	2.953	8274	949.6	99.62	8333	955.6	100.3	8392	961.6	101.0	8452	967.6	101.8
140	2.877	8264	948.1	102.0	8323	954.1	102.7	8382	960.1	103.4	8441	966.1	104.2
139	2.804	8255	946.8	104.4	8314	952.7	105.2	8372	958.7	105.9	8431	964.7	106.7
138	2.732	8245	945.4	106.9	8304	951.3	107.6	8363	957.3	108.4	8421	963.3	109.1
137	2.662	8235	943.9	109.4	8294	949.9	110.1	8352	955.8	110.9	8411	961.8	111.7
136	2.593	8226	942.5	112.0	8284	948.5	112.7	8342	954.4	113.5	8401	960.4	114.3
135	2.526	8216	941.1	114.6	8274	947.1	115.4	8333	953.0	116.2	8391	959.0	117.1
134	2.460	8206	939.7	117.4	8264	945.6	118.3	8322	951.5	119.1	8380	957.5	119.9

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.64			[illegible]			[illegible]			[illegible]		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	8904	1028.4	44.64	8968	1034.8	44.97	9033	1041.2	45.29	9098	1047.6	45.6
179	7.34	8894	1027.0	45.53	8958	1033.4	45.86	9023	1039.8	46.19	9087	1046.2	46.5
178	7.17	8884	1025.7	46.44	8948	1032.1	46.77	9013	1038.4	47.11	9077	1044.8	47.4
177	7.01	8874	1024.3	47.38	8938	1030.7	47.72	9002	1037.1	48.06	9067	1043.4	48.4
176	6.86	8863	1022.9	48.34	8928	1029.3	48.69	8992	1035.6	49.04	9056	1042.0	49.3
175	6.70	8853	1021.5	49.31	8917	1027.9	49.67	8981	1034.2	50.03	9045	1040.6	50.3
174	6.55	8843	1020.2	50.32	8907	1026.5	50.68	8971	1032.8	51.05	9035	1039.2	51.4
173	6.41	8833	1018.8	51.35	8897	1025.1	51.72	8961	1031.4	52.09	9024	1037.8	52.4
172	6.26	8823	1017.4	52.40	8887	1023.7	52.78	8950	1030.0	53.16	9014	1036.4	53.5
171	6.12	8813	1016.0	53.47	8876	1022.3	53.85	8940	1028.6	54.24	9003	1034.9	54.
170	5.98	8803	1014.6	54.58	8866	1020.9	54.97	8929	1027.2	55.36	8992	1033.5	55.
169	5.84	8793	1013.2	55.72	8856	1019.5	56.12	8919	1025.8	56.52	8982	1032.0	56.
168	5.71	8783	1011.8	56.88	8846	1018.1	57.29	8908	1024.4	57.70	8971	1030.6	58.
167	5.58	8773	1010.4	58.08	8836	1016.7	58.50	8898	1022.9	58.91	8961	1029.2	59.
166	5.45	8762	1009.0	59.30	8825	1015.3	59.72	8888	1021.5	60.14	8950	1027.8	60.
165	5.32	8752	1007.6	60.54	8815	1013.9	60.97	8877	1020.1	61.40	8940	1026.3	61.
164	5.20	8742	1006.2	61.82	8804	1012.4	62.22	8867	1018.7	62.71	8929	1024.9	63.
163	5.08	8732	1004.8	63.13	8794	1011.0	63.58	8856	1017.3	64.03	8919	1023.5	64.
162	4.960	8722	1003.4	64.48	8784	1009.6	64.94	8846	1015.8	65.40	8908	1022.0	65.
161	4.844	8713	1002.0	65.87	8775	1008.2	66.34	8837	1014.5	66.81	8899	1020.7	67.
160	4.729	8703	1000.6	67.28	8765	1006.8	67.76	8826	1013.0	68.24	8888	1019.2	68.
159	4.617	8693	999.2	68.73	8754	1005.4	69.22	8816	1011.6	69.71	8877	1017.8	70.
158	4.508	8682	997.8	70.22	8744	1004.0	70.72	8805	1010.1	71.22	8867	1016.3	71.
157	4.400	8673	996.4	71.76	8734	1002.6	72.26	8795	1008.8	72.77	8857	1014.9	73.
156	4.295	8662	995.0	73.33	8724	1001.1	73.85	8785	1007.3	74.37	8846	1013.5	74.
155	4.191	8652	993.6	74.93	8713	999.7	75.46	8774	1005.9	75.99	8835	1012.0	76.
154	4.090	8642	992.1	76.58	8703	998.3	77.12	8764	1004.4	77.66	8824	1010.5	78.
153	3.991	8632	990.7	78.27	8693	996.9	78.83	8753	1003.0	79.38	8814	1009.1	79.
152	3.894	8622	989.3	80.02	8682	995.4	80.58	8743	1001.5	81.14	8803	1007.7	81.
151	3.799	8611	987.9	81.80	8672	994.0	82.37	8732	1000.1	82.95	8793	1006.2	83.
150	3.706	8601	986.5	83.64	8662	992.6	84.23	8722	998.7	84.81	8782	1004.8	85.
149	3.615	8591	985.0	85.51	8651	991.1	86.11	8711	997.2	86.71	8772	1003.3	87.
148	3.526	8581	983.6	87.44	8641	989.7	88.05	8701	995.8	88.67	8761	1001.9	89.
147	3.439	8571	982.2	89.39	8631	988.2	90.02	8690	994.3	90.64	8750	1000.4	91
146	3.353	8561	980.8	91.43	8621	986.8	92.07	8680	992.9	92.71	8740	998.9	93
145	3.270	8550	979.3	93.54	8610	985.4	94.20	8670	991.4	94.85	8729	997.4	95
144	3.188	8540	977.9	95.65	8600	983.9	96.32	8659	990.0	96.99	8719	996.0	97
143	3.108	8530	976.4	97.84	8589	982.5	98.52	8649	988.5	99.20	8708	994.5	99
142	3.029	8520	975.0	100.1	8579	981.0	100.8	8638	987.0	101.5	8698	993.1	102
141	2.953	8511	973.6	102.5	8570	979.6	103.2	8629	985.6	103.9	8688	991.6	104
140	2.877	8500	972.1	104.9	8559	978.1	105.6	8618	984.1	106.3	8677	990.1	107
139	2.804	8490	970.7	107.4	8549	976.7	108.1	8608	982.7	108.9	8667	988.6	109
138	2.732	8480	969.3	109.9	8539	975.2	110.7	8597	981.2	111.4	8656	987.2	112
137	2.662	8469	967.8	112.5	8528	973.7	113.3	8587	979.7	114.0	8645	985.7	114
136	2.593	8459	966.3	115.1	8518	972.3	115.9	8576	978.3	116.7	8635	984.2	117
135	2.526	8449	964.9	117.9	8508	970.9	118.7	8566	976.8	119.5	8624	982.7	120
134	2.460	[illegible]	963.4	120.7	8497	969.3	121.6	8555	975.3	122.4	8613	981.2	123

Temperature, Degrees Fahr.	Pressure Pounds per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
132	2.333	8187	936.9	123.1	8245	942.8	124.0	8303	948.7	124.9	836
131	2.272	8177	935.4	126.1	8235	941.3	127.0	8293	947.3	127.9	835
130	2.212	8168	934.0	129.1	8225	939.9	130.0	8283	945.8	130.9	834
129	2.153	8158	932.6	132.4	8215	938.5	133.3	8273	944.4	134.3	83
128	2.096	8148	931.2	135.6	8206	937.1	136.5	8263	942.9	137.5	83
127	2.040	8139	929.8	138.9	8196	935.7	139.9	8253	941.5	140.9	831
126	1.985	8129	928.3	142.4	8186	934.2	143.4	8243	940.0	144.4	830
125	1.932	8119	926.9	146.0	8176	932.8	147.0	8233	938.6	148.0	829
124	1.880	8109	925.5	149.6	8166	931.3	150.7	8223	937.1	151.7	828
123	1.829	8100	924.1	153.3	8156	929.9	154.4	8213	935.7	155.5	82
122	1.779	8090	922.6	157.2	8146	928.4	158.3	8203	934.2	159.4	82
121	1.730	8081	921.2	161.2	8138	927.0	162.3	8194	932.8	163.5	82
120	1.683	8071	919.8	165.3	8128	925.6	166.5	8184	931.3	167.6	82
119	1.636	8062	918.4	169.5	8118	924.2	170.7	8174	929.9	171.9	82
118	1.591	8052	916.9	173.9	8108	922.7	175.1	8164	928.5	176.3	82
117	1.547	8042	915.5	178.4	8098	921.2	179.6	8154	927.0	180.9	821
116	1.504	8032	914.0	183.0	8088	919.7	184.2	8144	925.5	185.5	81
115	1.462	8023	912.6	187.7	8079	918.3	189.0	8134	926.1	190.3	81
114	1.421	8013	911.1	192.6	8068	916.8	194.0	8124	922.6	195.3	81
113	1.381	8003	909.7	197.7	8058	915.4	199.0	8114	921.1	200.4	81
112	1.342	7994	908.2	202.9	8049	913.9	204.3	8104	919.6	205.7	81
111	1.304	7984	906.8	208.3	8039	912.5	209.7	8094	918.2	211.2	81
110	1.266	7974	905.3	213.8	8029	911.0	215.3	8084	916.7	216.7	81
109	1.230	7964	903.9	219.5	8019	909.6	221.0	8074	915.2	222.5	81
108	1.195	7955	902.4	225.4	8009	908.1	226.9	8064	913.7	228.4	81
107	1.160	7944	901.0	231.3	7999	906.6	232.9	8053	912.3	234.5	81
106	1.127	7935	899.5	237.6	7989	905.1	239.2	8044	910.8	240.8	80
105	1.094	7925	898.0	244.1	7979	903.6	245.8	8034	909.3	247.4	80
104	1.062	7915	896.5	250.7	7969	902.1	252.5	8023	907.8	254.2	80
103	1.031	7905	895.1	257.6	7959	900.7	259.4	8013	906.3	261.1	80
102	1.000	7896	893.6	264.7	7950	899.2	266.5	8003	904.8	268.3	80
101	0.971	7887	892.1	271.9	7941	897.7	273.8	7994	903.3	275.6	80
100	0.942	7877	890.6	279.4	7930	896.2	281.3	7984	901.8	283.2	80
99	0.914	7867	889.2	287.3	7920	894.8	289.3	7974	900.3	291.2	80
98	0.887	7857	887.7	295.3	7910	893.3	297.4	7964	898.8	299.4	80
97	0.860	7847	886.3	303.6	7901	891.9	305.7	7954	897.4	307.7	80
96	0.834	7838	884.9	312.3	7891	890.4	314.4	7944	896.0	316.5	79
95	0.809	7829	883.4	321.1	7881	888.9	323.3	7934	894.5	325.5	79
94	0.784	7819	881.9	330.3	7871	887.4	332.5	7924	893.0	334.7	79
93	0.761	7809	880.4	339.7	7861	885.9	342.0	7914	891.5	344.3	79
92	0.737	7799	878.9	349.5	7851	884.4	351.8	7904	889.9	354.2	79
91	0.715	7789	877.4	359.6	7841	882.9	362.0	7894	888.4	364.5	79
90	0.693	7779	875.9	370.0	7831	881.4	372.5	7884	886.9	374.9	79
89	0.671	7769	874.4	380.7	7821	879.9	383.2	7873	885.4	385.8	79
88	0.650	7759	872.9	391.7	7811	878.4	394.3	7863	883.9	396.9	79

Degrees Fahr.	Pressure, Pounds per Square Inch.	1.64 Quality.	1.64 Heat Contents.	1.64 Specific Volume.	1.65 Quality.	1.65 Heat Contents.	1.65 Specific Volume.	1.66 Quality.	1.66 Heat Contents.	1.66 Specific Volume.	1.67 Quality.	1.67 Heat Contents.	1.67 Specific Volume.
2	2.333	8418	960.5	126.6	8476	966.4	127.5	8534	972.3	128.4	8592	978.3	129.2
1	2.272	8408	959.1	129.7	8466	965.0	130.5	8524	970.9	131.4	8581	976.8	132.3
0	2.212	8398	957.6	132.8	8455	963.5	133.7	8513	969.4	134.6	8571	975.3	135.5
9	2.153	8388	956.2	136.1	8445	962.0	137.0	8503	967.9	138.0	8560	973.8	138.9
8	2.096	8377	954.7	139.4	8435	960.6	140.4	8492	966.4	141.3	8549	972.3	142.3
7	2.040	8367	953.3	142.8	8424	959.1	143.8	8482	965.0	144.8	8539	970.8	145.8
6	1.985	8357	951.8	146.4	8414	957.6	147.4	8471	963.5	148.4	8528	969.3	149.4
5	1.932	8347	950.4	150.1	8404	956.2	151.1	8460	962.1	152.1	8517	967.7	153.1
4	1.880	8336	948.8	153.8	8393	954.6	154.9	8450	960.5	155.9	8507	966.3	156.9
3	1.829	8326	947.4	157.6	8388	953.2	158.7	8439	959.1	159.8	8496	964.9	160.8
2	1.779	8316	945.9	161.6	8372	951.7	162.7	8429	957.5	163.8	8485	963.3	164.9
1	1.730	8307	944.4	165.7	8363	950.2	166.8	8419	956.0	168.0	8476	961.8	169.1
0	1.683	8296	942.9	169.9	8353	948.7	171.1	8409	954.5	172.2	8465	960.3	173.4
9	1.636	8286	941.5	174.3	8342	947.3	175.4	8398	953.0	176.6	8454	958.8	177.8
8	1.591	8276	940.0	178.8	8332	945.8	180.0	8388	951.5	181.2	8444	957.3	182.4
7	1.547	8266	938.5	183.3	8321	944.3	184.6	8377	950.0	185.8	8433	955.8	187.0
6	1.504	8255	937.0	188.0	8311	942.8	189.3	8366	948.5	190.6	8422	954.2	191.9
5	1.462	8245	935.5	192.9	8301	941.3	194.2	8356	947.0	195.5	8412	952.8	196.8
4	1.421	8235	934.0	198.0	8290	939.8	199.3	8346	945.5	200.6	8401	951.3	202.0
3	1.381	8224	932.6	203.1	8280	938.3	204.5	8335	944.0	205.9	8390	949.8	207.2
2	1.342	8214	931.1	208.5	8269	936.8	209.9	8325	942.5	211.3	8380	948.2	212.7
1	1.304	8204	929.6	214.0	8259	935.3	215.5	8314	941.0	216.9	8369	946.7	218.3
0	1.266	8194	928.1	219.7	8249	933.8	221.1	8303	939.5	222.6	8358	945.2	224.1
09	1.230	8183	926.6	225.5	8238	932.3	227.0	8293	938.0	228.5	8347	943.7	230.1
08	1.195	8173	925.1	231.5	8228	930.8	233.1	8282	936.4	234.6	8337	942.1	236.2
07	1.160	8162	923.6	237.7	8217	929.3	239.3	8271	934.9	240.9	8326	940.6	242.4
06	1.127	8152	922.1	244.1	8207	927.7	245.7	8261	933.4	247.3	8315	939.0	249.0
05	1.094	8142	920.6	250.8	8196	926.2	252.4	8251	931.9	254.1	8304	937.5	255.8
04	1.062	8131	919.1	257.6	8186	924.7	259.3	8240	930.3	261.0	8294	936.0	262.7
03	1.031	8121	917.6	264.7	8175	923.2	266.4	8229	928.8	268.2	8283	934.5	269.9
02	1.000	8111	916.1	271.9	8165	921.7	273.7	8219	927.3	275.5	8273	932.9	277.3
01	0.971	8102	914.5	279.3	8155	920.2	281.2	8209	925.8	283.0	8263	931.4	284.9
00	0.942	8091	913.0	287.0	8144	918.6	288.9	8198	924.2	290.8	8252	929.8	292.7
99	0.914	8081	911.5	295.1	8134	917.1	297.1	8188	922.7	299.0	8241	928.3	301.0
98	0.887	8070	910.0	303.4	8124	915.6	305.4	8177	921.2	307.4	8230	926.7	309.4
97	0.860	8060	908.5	311.8	8113	914.1	313.9	8166	919.7	316.0	8220	925.2	318.0
96	0.834	8051	907.1	320.7	8104	912.6	322.8	8157	918.2	325.0	8210	923.7	327.1
95	0.809	8040	905.5	329.8	8093	911.1	332.0	8146	916.7	334.2	8199	922.2	336.3
94	0.784	8030	904.0	339.2	8083	909.6	341.4	8135	915.1	343.6	8188	920.6	345.9
93	0.761	8019	902.5	348.8	8072	908.1	351.1	8125	913.6	353.4	8177	919.1	355.7
92	0.737	8009	901.0	358.9	8062	906.5	361.2	8114	912.0	363.6	8167	917.5	365.9

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.68			1.69			1.70			1.71		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
420	308.6	...	...	...	...	...	...	...	...	...	...	...	...
419	305.2	300	1375	2.290	...	...	...	...	...	...	...	...	...
418	301.9	298	1373	2.310	...	...	...	...	...	...	...	...	...
417	298.7	296	1371	2.330	...	...	...	...	...	...	...	...	...
416	295.4	294	1370	2.349	...	...	...	...	...	...	...	...	...
415	292.2	292	1369	2.368	...	...	...	...	...	...	...	...	...
414	289.0	291	1368	2.387	...	...	...	...	...	...	...	...	...
413	285.9	289	1367	2.406	...	...	...	...	...	...	...	...	...
412	282.7	287	1365	2.425	...	...	...	...	...	...	...	...	...
411	279.6	285	1364	2.445	...	...	...	...	...	...	...	...	...
410	276.5	283	1362	2.464	...	...	...	...	...	...	...	...	...
409	273.5	281	1361	2.484	...	...	...	...	...	...	...	...	...
408	270.5	279	1359	2.505	...	...	...	...	...	...	...	...	...
407	267.5	278	1358	2.526	300	1369	2.586	...	...	...	...	...	...
406	264.5	276	1357	2.547	298	1368	2.608	...	...	...	...	...	...
405	261.6	274	1356	2.568	296	1367	2.629	...	...	...	...	...	...
404	258.6	272	1354	2.589	294	1365	2.650	...	...	...	...	...	...
403	255.7	270	1353	2.610	292	1364	2.672	...	...	...	...	...	...
402	252.9	268	1351	2.631	290	1362	2.696	...	...	...	...	...	...
401	250.0	266	1350	2.653	288	1361	2.719	...	...	...	...	...	...
400	247.2	264	1349	2.676	286	1360	2.740	...	...	...	...	...	...
399	244.4	263	1348	2.698	284	1358	2.764	...	...	...	...	...	...
398	241.7	261	1347	2.723	282	1357	2.788	...	...	...	...	...	...
397	238.9	259	1345	2.746	280	1355	2.810	...	...	...	...	...	...
396	236.2	257	1344	2.770	278	1354	2.835	...	...	...	...	...	...
395	233.5	255	1342	2.793	276	1353	2.860	...	...	...	...	...	...
394	230.8	253	1341	2.818	274	1351	2.885	299	1364	2.960	...	...	...
393	228.2	251	1339	2.843	272	1350	2.910	297	1363	2.985	...	...	...
392	225.6	249	1338	2.869	270	1349	2.936	295	1361	3.010	...	...	...
391	223.0	247	1337	2.894	269	1348	2.961	293	1360	3.035	...	...	...
390	220.4	246	1336	2.920	267	1346	2.988	291	1358	3.060	...	...	...
389	217.8	244	1335	2.946	265	1345	3.015	289	1357	3.186	...	...	...
388	215.3	242	1333	2.972	263	1344	3.041	286	1355	3.112	...	...	...
387	212.8	240	1332	3.000	261	1342	3.069	284	1353	3.140	...	...	...
386	210.3	238	1330	3.027	259	1341	3.096	282	1352	3.167	...	...	...
385	207.9	236	1329	3.054	257	1339	3.125	280	1351	3.296	...	...	...
384	205.4	234	1327	3.082	255	1338	3.152	278	1349	3.223	...	...	...
383	203.0	232	1326	3.110	253	1336	3.180	276	1348	3.251	300	1360	3.330
382	200.6	230	1325	3.139	251	1335	3.209	274	1347	3.280	298	1358	3.360
381	198.3	229	1324	3.170	249	1333	3.239	272	1345	3.310	296	1357	3.390
380	195.9	227	1322	3.198	247	1332	3.266	270	1344	3.340	294	1355	3.420
379	193.6	225	1321	3.227	245	1331	3.296	268	1342	3.370	292	1354	3.450
378	191.3	223	1319	3.257	243	1329	3.325	266	1341	3.400	290	1353	3.481
377	189.0	221	1318	3.287	241	1328	3.355	264	1339	3.431	287	1351	3.514
376	186.7	219	1317	3.317	239	1327	3.385	262	1338	3.464	285	1349	3.544
375	184.5	217	1315	3.346	238	1326	3.418	260	1337	3.497	283	1348	3.577

TEMPERATURE–ENTROPY TABLE.

Temperature, Degrees Fah	Pressure, Poun per Square Inch.	1.68			1.69			1.70			1.71		
		Quality.	Heat Contents	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
372	177.9	212	1311	3.438	232	1322	3.510	254	1333	3.594	276	1343	3.673
371	175.7	210	1310	3.469	230	1320	3.541	252	1331	3.628	274	1342	3.708
370	173.6	208	1309	3.500	228	1319	3.578	250	1330	3.660	272	1340	3.740
369	171.5	206	1307	3.534	226	1317	3.610	248	1328	3.694	270	1339	3.775
368	169.4	204	1306	3.567	224	1316	3.643	246	1327	3.728	268	1338	3.810
367	167.3	202	1305	3.600	222	1315	3.679	244	1326	3.763	266	1336	3.845
366	165.3	200	1303	3.634	220	1313	3.711	242	1324	3.798	263	1334	3.882
365	163.2	198	1302	3.669	218	1312	3.748	240	1323	3.831	261	1333	3.918
364	161.2	197	1301	3.702	216	1310	3.781	238	1321	3.868	259	1332	3.955
363	159.2	195	1300	3.738	214	1309	3.818	236	1320	3.905	257	1330	3.990
362	157.2	193	1298	3.773	212	1308	3.853	234	1319	3.940	255	1329	4.028
361	155.3	191	1297	3.809	210	1306	3.890	232	1317	3.979	253	1328	4.065
360	153.3	189	1295	3.845	208	1305	3.928	230	1316	4.015	251	1326	4.104
359	151.4	187	1294	3.880	206	1303	3.961	227	1314	4.054	248	1324	4.141
358	149.5	185	1292	3.918	204	1302	4.000	225	1312	4.092	246	1323	4.182
357	147.6	183	1291	3.954	203	1301	4.040	223	1311	4.131	244	1321	4.221
356	145.8	182	1290	3.991	201	1300	4.079	221	1310	4.171	242	1320	4.263
355	143.9	180	1289	4.029	199	1299	4.119	219	1308	4.210	240	1319	4.305
354	142.1	178	1288	4.069	197	1297	4.159	217	1307	4.251	238	1317	4.347
353	140.3	176	1286	4.109	195	1296	4.199	215	1306	4.293	235	1315	4.390
352	138.5	174	1285	4.149	193	1294	4.240	213	1304	4.337	233	1314	4.433
351	136.7	172	1283	4.189	191	1293	4.282	211	1303	4.379	231	1313	4.477
350	135.0	170	1282	4.230	189	1292	4.325	209	1302	4.420	229	1311	4.520
349	133.2	168	1280	4.272	187	1290	4.370	207	1300	4.466	227	1310	4.568
348	131.5	166	1279	4.315	185	1289	4.413	205	1299	4.512	224	1308	4.615
347	129.8	165	1278	4.360	183	1287	4.460	203	1297	4.560	222	1307	4.662
346	128.1	163	1277	4.405	181	1286	4.505	201	1296	4.608	220	1305	4.709
345	126.4	161	1275	4.451	179	1285	4.550	199	1295	4.655	218	1304	4.760
344	124.8	159	1274	4.495	177	1283	4.597	197	1293	4.704	216	1303	4.809
343	123.2	157	1273	4.542	175	1282	4.645	195	1292	4.752	214	1301	4.859
342	121.5	155	1271	4.590	173	1280	4.690	193	1290	4.800	212	1300	4.909
341	119.9	153	1270	4.638	171	1279	4.740	191	1289	4.850	210	1299	4.960
340	118.4	152	1269	4.685	170	1278	4.788	189	1288	4.900	208	1297	5.010
339	116.8	150	1268	4.733	168	1277	4.838	187	1286	4.950	205	1295	5.061
338	115.2	148	1266	4.783	166	1275	4.887	185	1285	5.000	203	1294	5.115
337	113.7	146	1265	4.832	164	1274	4.939	183	1284	5.055	201	1292	5.170
36	112.2	144	1263	4.880	162	1273	4.990	181	1282	5.105	199	1291	5.224
35	110.7	142	1262	4.930	160	1271	5.040	179	1281	5.160	197	1290	5.279
34	109.2	140	1261	4.980	158	1270	5.092	177	1280	5.212	195	1288	5.334
33	107.7	138	1259	5.032	156	1268	5.147	174	1278	5.272	193	1287	5.389
32	106.3	137	1258	5.086	154	1267	5.200	172	1276	5.322	191	1286	5.444
31	104.8	135	1257	5.140	152	1266	5.256	170	1275	5.380	189	1284	5.500
30	103.4	133	1256	5.195	150	1264	5.312	168	1274	5.435	186	1282	5.555
29	102.0	131	1254	5.250	148	1263	5.370	166	1272	5.493	184	1281	5.612
28	100.6	129	1253	5.309	146	1261	5.430	164	1271	5.550	182	1280	5.670
27	99.2	127	1252	5.365	144	1260	5.487	162	1269	5.610	180	1278	5.730
26	97.8	125	1250	5.420	142	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Degrees F	Pressure, Pounds per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
2	177.9	299	1354	3.765	...	...	...	...	...	...	...	...	...
1	175.7	297	1353	3.798	...	...	...	...	...	...	...	...	...
0	173.6	295	1351	3.833	...	...	...	...	...	...	...	...	...
9	171.5	292	1349	3.869	...	...	...	...	...	...	...	...	...
8	169.4	290	1348	3.904	...	...	...	...	...	...	...	...	...
7	167.3	288	1347	3.940	...	...	...	...	...	...	...	...	...
6	165.3	286	1345	3.976	...	...	...	...	...	...	...	...	...
5	163.2	284	1344	4.011	...	...	...	...	...	...	...	...	...
4	161.2	282	1343	4.049	...	...	...	...	...	...	...	...	...
3	159.2	280	1341	4.086	...	...	...	...	...	...	...	...	...
2	157.2	277	1339	4.123	...	...	...	...	...	...	...	...	...
1	155.3	275	1338	4.160	299	1349	4.260	...	...	...	...	...	...
0	153.3	273	1337	4.200	297	1348	4.302	...	...	...	...	...	...
9	151.4	271	1335	4.239	295	1346	4.343	...	...	...	...	...	...
8	149.5	269	1334	4.279	293	1345	4.385	...	...	...	...	...	...
7	147.6	267	1333	4.319	290	1343	4.428	...	...	...	...	...	...
6	145.8	264	1331	4.360	288	1342	4.470	...	...	...	...	...	...
5	143.9	262	1329	4.400	286	1340	4.513	...	...	...	...	...	...
54	142.1	260	1328	4.444	283	1338	4.557	...	...	...	...	...	...
53	140.3	258	1327	4.488	281	1337	4.602	...	...	...	...	...	...
52	138.5	256	1326	4.532	279	1336	4.647	...	...	...	...	...	...
51	136.7	254	1324	4.577	277	1335	4.695	...	...	...	...	...	...
50	135.0	252	1323	4.622	274	1333	4.743	299	1344	4.850	...	...	...
49	133.2	249	1321	4.669	272	1331	4.790	296	1342	4.900	...	...	...
48	131.5	247	1319	4.717	270	1330	4.839	294	1341	4.950	...	...	...
47	129.8	245	1318	4.766	267	1328	4.889	292	1339	5.000	...	...	...
46	128.1	243	1317	4.815	265	1327	4.935	290	1338	5.050	...	...	...
45	126.4	241	1315	4.868	263	1325	4.985	287	1336	5.105	...	...	...
44	124.8	239	1314	4.919	261	1324	5.037	285	1335	5.155	...	...	...
43	123.2	236	1312	4.970	258	1322	5.090	283	1334	5.208	...	...	...
42	121.5	234	1311	5.020	256	1321	5.140	280	1332	5.260	...	...	...
41	119.9	232	1309	5.075	254	1319	5.193	278	1330	5.315	300	1339	5.433
40	118.4	230	1308	5.124	252	1318	5.247	276	1329	5.367	298	1338	5.488
39	116.8	228	1307	5.179	249	1316	5.300	273	1327	5.420	296	1337	5.545
38	115.2	226	1305	5.230	247	1315	5.355	271	1326	5.475	293	1335	5.600
37	113.7	224	1304	5.286	245	1314	5.410	269	1325	5.530	291	1334	5.660
36	112.2	221	1302	5.340	242	1312	5.463	266	1323	5.585	289	1333	5.717
35	110.7	219	1300	5.395	240	1310	5.520	264	1321	5.640	286	1332	5.775
34	109.2	217	1299	5.450	238	1309	5.580	262	1320	5.700	284	1330	5.836
33	107.7	215	1298	5.502	236	1308	5.638	259	1318	5.760	281	1328	5.898
32	106.3	213	1297	5.560	233	1306	5.695	257	1317	5.820	279	1327	5.960
31	104.8	211	1295	5.620	231	1305	5.750	255	1316	5.882	277	1326	6.023
30	103.4	208	1293	5.675	229	1303	5.810	252	1314	5.940	274	1324	6.088
29	102.0	206	1292	5.735	226	1301	5.868	250	1313	6.007	272	1323	6.154
28	100.6	204	1290	5.795	224	1300	5.928	247	1311	6.070	269	1321	6.220
27	99.2	202	1289	5.850	222	1299	5.990	245	1309	6.130	267	1320	6.285
26	97.8	200	1288	5.910	220	1297	6.052	243	1308	6.195	264	1318	6.355
25	96.5	198	1286	5.970	217	1295	6.115	240	1306	6.260	262	1316	6.435

Temperature, Degrees F.	Pressure, Pounds per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	121	1247	5.535	139	1257	5.670	156	1265	5.790	174	1274	5.910
323	93.8	120	1246	5.595	137	1255	5.730	154	1264	5.850	172	1273	5.975
322	92.5	118	1245	5.655	135	1254	5.790	152	1262	5.910	170	1272	6.040
321	91.2	116	1244	5.715	133	1252	5.850	150	1261	5.975	168	1270	6.105
320	90.0	114	1242	5.775	131	1251	5.910	148	1260	6.040	165	1268	6.170
319	88.7	112	1241	5.835	129	1250	5.970	146	1258	6.105	163	1267	6.240
318	87.4	110	1239	5.900	127	1248	6.030	144	1257	6.175	161	1266	6.310
317	86.2	108	1238	5.965	125	1247	6.09	142	1256	6.240	159	1264	6.375
316	85.0	106	1237	6.030	123	1245	6.16	140	1254	6.310	157	1263	6.45
315	83.8	105	1236	6.09	121	1244	6.23	138	1253	6.380	155	1261	6.52
314	82.6	103	1234	6.16	119	1243	6.30	136	1251	6.450	153	1260	6.59
313	81.4	101	1233	6.23	117	1241	6.37	134	1250	6.525	151	1259	6.66
312	80.2	99	1232	6.30	116	1240	6.44	132	1249	6.60	149	1257	6.74
311	79.1	97	1230	6.37	114	1239	6.51	130	1247	6.67	147	1256	6.82
310	77.9	95	1229	6.44	112	1238	6.59	128	1246	6.74	144	1254	6.89
309	76.8	93	1227	6.51	110	1236	6.66	126	1244	6.82	142	1253	6.97
308	75.7	91	1226	6.59	108	1235	6.74	124	1243	6.89	140	1251	7.05
307	74.6	89	1225	6.67	106	1234	6.81	122	1242	6.97	138	1250	7.13
306	73.5	88	1224	6.74	104	1232	6.89	120	1240	7.05	136	1249	7.21
305	72.4	86	1222	6.82	102	1231	6.97	118	1239	7.14	134	1247	7.29
304	71.4	84	1221	6.90	100	1229	7.05	116	1238	7.22	132	1246	7.38
303	70.3	82	1220	6.98	98	1228	7.14	114	1236	7.30	130	1245	7.46
302	69.3	80	1218	7.06	96	1227	7.22	112	1235	7.38	128	1243	7.54
301	68.2	78	1217	7.14	94	1225	7.30	110	1233	7.47	126	1242	7.63
300	67.2	76	1215	7.23	92	1224	7.39	108	1232	7.55	124	1240	7.73
299	66.2	74	1214	7.31	90	1222	7.48	106	1231	7.64	122	1239	7.82
298	65.2	72	1213	7.39	88	1221	7.57	104	1229	7.73	119	1237	7.90
297	64.3	71	1212	7.48	86	1220	7.65	102	1228	7.82	117	1236	7.99
296	63.3	69	1210	7.57	85	1219	7.74	100	1227	7.91	115	1235	8.09
295	62.3	67	1209	7.66	83	1218	7.83	98	1225	8.00	113	1233	8.19
294	61.4	65	1208	7.75	81	1216	7.92	96	1224	8.09	111	1232	8.28
293	60.5	63	1206	7.84	79	1215	8.01	94	1223	8.18	109	1230	8.38
292	59.5	61	1205	7.93	77	1213	8.10	92	1221	8.28	107	1229	8.47
291	58.6	59	1204	8.03	75	1212	8.20	90	1220	8.38	105	1228	8.57
290	57.7	58	1203	8.13	73	1210	8.30	88	1218	8.48	103	1226	8.67
289	56.8	56	1201	8.22	71	1209	8.40	86	1217	8.58	101	1225	8.77
288	56.0	54	1200	8.32	69	1208	8.50	84	1216	8.68	99	1223	8.87
287	55.1	52	1198	8.42	67	1206	8.60	82	1214	8.79	97	1222	8.98
286	54.2	50	1197	8.51	65	1205	8.70	80	1213	8.89	95	1221	9.10
285	53.4	48	1196	8.61	63	1204	8.81	78	1212	9.00	93	1219	9.21
284	52.6	46	1194	8.72	61	1202	8.91	76	1210	9.10	91	1218	9.32
283	51.7	45	1193	8.83	60	1201	9.02	74	1209	9.22	89	1216	9.43
282	50.9	43	1192	8.94	58	1200	9.14	72	1207	9.33	87	1215	9.54
281	50.1	41	1191	9.05	56	1199	9.25	70	1206	9.44	85	1214	9.65
280	49.33	39	1189	9.16	54	1197	9.36	68	1205	9.55	83	1212	9.77
279	48.55	37	1188	9.27	52	1196	9.47	66	1203	9.67	81	1211	9.89
278	47.77	35	1186	9.38	50	1194	9.59	64	1202	9.78	79	1210	10.02
277	47.01	33	1185	9.50	48	1193	9.70	62	1200	9.90	76	1208	10.14

Temperature, Degrees Fa[hrenheit]	Pressure, Pou[nds] per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
324	95.1	195	1284	6.05	215	1294	6.19	238	1305	6.33	260
323	93.8	193	1283	6.11	213	1293	6.26	236	1304	6.40	257
322	92.5	191	1282	6.18	210	1291	6.33	233	1302	6.46	255
321	91.2	189	1280	6.25	208	1290	6.40	231	1300	6.53	252
320	90.0	187	1279	6.32	206	1288	6.46	229	1299	6.60	250
319	88 7	185	1278	6.39	204	1287	6.53	226	1297	6.67	248
318	87.4	182	1276	6.45	201	1285	6.60	224	1296	6.75	245
317	86.2	180	1274	6.53	199	1284	6.67	222	1295	6.83	243
316	85.0	178	1273	6.60	197	1283	6.75	219	1293	6.90	240
315	83.8	176	1272	6.67	194	1281	6.82	217	1291	6.98	238
314	82.6	174	1270	6.75	192	1279	6.90	215	1290	7.06	235
313	81.4	172	1269	6.82	190	1278	6.97	212	1288	7.14	233
312	80.2	170	1268	6.90	188	1277	7.05	210	1287	7.22	231
311	79.1	168	1267	6.97	185	1275	7.13	208	1286	7.30	228
310	77.9	166	1265	7.05	183	1274	7.20	205	1284	7.38	226
309	76.8	163	1263	7.13	181	1272	7.29	203	1283	7.46	224
308	75.7	161	1262	7.20	179	1271	7.37	201	1281	7.54	221
307	74.6	159	1261	7.29	176	1269	7.45	198	1279	7.63	219
306	73.5	157	1259	7.37	174	1267	7.53	196	1278	7.72	216
305	72.4	154	1257	7.46	172	1266	7.62	194	1277	7.80	214
304	71.4	152	1256	7.54	170	1265	7.70	191	1275	7.89	211
303	70.3	150	1255	7.63	167	1263	7.79	189	1273	7.98	209
302	69.3	148	1253	7.71	165	1262	7.88	186	1271	8.07	207
301	68.2	146	1252	7.80	163	1260	7.97	184	1270	8.16	204
300	67.2	144	1250	7.89	161	1259	8.06	182	1269	8.25	202
299	66.2	141	1248	7.99	158	1257	8.16	180	1268	8.35	199
298	65 2	139	1247	8.08	156	1255	8.25	177	1266	8.44	197
297	64.3	137	1246	8.17	154	1254	8.34	175	1264	8.54	195
296	63.3	135	1244	8.26	151	1252	8.43	173	1263	8.64	192
295	62.3	133	1243	8.36	149	1251	8.53	170	1261	8.74	190
294	61.4	131	1242	8.46	147	1249	8.63	168	1260	8.85	187
293	60.5	128	1240	8.56	145	1248	8.74	165	1258	8.95	185
292	59.5	126	1238	8.66	143	1247	8.84	163	1257	9.05	183
291	58.6	124	1237	8.76	140	1245	8.95	161	1255	9.16	180
290	57.7	122	1236	8.86	138	1244	9.05	158	1253	9.27	178
289	56.8	120	1234	8.96	136	1242	9.16	156	1252	9.38	175
288	56.0	118	1233	9.06	134	1241	9.27	154	1251	9.50	173
287	55.1	116	1232	9.18	132	1240	9.38	151	1249	9.61	170
286	54.2	113	1230	9.29	129	1238	9.50	149	1247	9.72	168
285	53.4	111	1228	9.40	127	1236	9.61	147	1246	9.84	166
284	52.6	109	1227	9.51	125	1235	9.72	144	1244	9.95	163
283	51.7	107	1226	9.63	123	1234	9.84	142	1243	10.07	161
282	50.9	105	1224	9.74	120	1232	9.96	140	1242	10.20	158
281	50.1	103	1223	9.86	118	1230	10.09	137	1240	10.33	156
280	49.33	101	1222	9.98	116	1229	10.21	135	1238	10.46	153
279	48.55	98	1220	10.10	114	1228	10.33	133	1237	10.58	151
278	47.77	96	1218	10.23	112	1226	10.46	130	1235	10.71	149

Temperature, Degrees Fah	Pressure, Poun per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.
276	46.26	32	1184	9.62	46	1192	9.83	60	1199	10.04	74
275	45.52	30	1183	9.74	44	1190	9.95	58	1198	10.15	72
274	44.78	28	1181	9.86	42	1189	10.07	56	1196	10.28	70
273	44.06	26	1180	9.98	41	1188	10.20	54	1195	10.40	68
272	43.35	24	1178	10.10	39	1187	10.33	52	1193	10.54	66
271	42.64	22	1177	10.23	37	1185	10.47	50	1192	10.67	64
270	41.95	21	1176	10.36	35	1184	10.60	49	1191	10.80	62
269	41.26	19	1175	10.50	33	1182	10.73	47	1190	10.94	60
268	40.58	17	1173	10.64	31	1181	10.87	45	1188	11.08	58
267	39.91	15	1172	10.76	29	1179	11.00	43	1187	11.22	56
266	39.26	13	1170	10.90	27	1178	11.15	41	1186	11.37	54
265	38.60	11	1169	11.05	25	1177	11.30	39	1184	11.52	52
264	37.96	10	1168	11.19	23	1175	11.45	37	1183	11.67	50
263	37.33	8	1167	11.33	21	1174	11.59	35	1181	11.81	49
262	36.71	6	1165	11.48	20	1173	11.74	33	1180	11.96	47
261	36.09	4	1164	11.63	18	1172	11.89	31	1178	12.12	45
260	35.48	2	1162	11.78	16	1170	12.04	29	1177	12.27	43
259	34.88	0	1161	11.93	14	1169	12.20	27	1176	12.45	41
258	34.29	9992	1159.9	11.99	12	1167	12.36	25	1174	12.60	39
257	33.71	9982	1158.6	12.17	10	1166	12.52	23	1173	12.78	37
256	33.14	9972	1157.3	12.35	8	1164	12.69	21	1172	12.96	35
255	32.57	9960	1156.0	12.55	6	1163	12.85	20	1171	13.14	33
254	32.01	9949	1154.6	12.74	4	1161	13.02	18	1169	13.30	31
253	31.46	9938	1153.4	12.94	2	1160	13.20	16	1168	13.49	29
252	30.92	9928	1152.1	13.15	0	1159	13.37	14	1167	13.66	27
251	30.38	9918	1150.8	13.35	9993	1157.8	13.45	12	1165	13.85	25
250	29.86	9907	1149.5	13.55	9982	1156.5	13.66	10	1164	14.05	23
249	29.34	9896	1148.2	13.77	9971	1155.2	13.87	8	1162	14.25	21
248	28.82	9885	1146.8	13.98	9960	1153.9	14.08	6	1161	14.45	19
247	28.32	9875	1145.5	14.19	9950	1152.6	14.30	4	1160	14.64	17
246	27.82	9864	1144.2	14.41	9939	1151.3	14.52	2	1158	14.84	15
245	27.33	9853	1142.9	14.63	9928	1150.0	14.74	0	1157	15.04	13
244	26.85	9843	1141.6	14.87	9918	1148.6	14.99	9992	1155.7	15.10	12
243	26.37	9832	1140.3	15.11	9907	1147.3	15.23	9981	1154.4	15.34	10
242	25.90	9822	1139.0	15.35	9896	1146.0	15.47	9971	1153.0	15.58	8
241	25.44	9811	1137.7	15.60	9885	1144.7	15.72	9959	1151.7	15.84	6
240	24.98	9801	1136.3	15.85	9875	1143.3	15.97	9949	1150.3	16.09	4
239	24.53	9790	1135.0	16.10	9864	1142.0	16.23	9938	1149.0	16.35	2
238	24.09	9780	1133.6	16.37	9854	1140.6	16.49	9927	1147.6	16.62	0
237	23.66	9769	1132.3	16.64	9842	1139.3	16.76	9916	1146.3	16.89	9989
236	23.23	9759	1131.0	16.91	9832	1138.0	17.04	9905	1144.9	17.17	9979
235	22.80	9748	1129.7	17.19	9821	1136.6	17.31	9894	1143.5	17.44	9967
234	22.39	9737	1128.3	17.47	9810	1135.2	17.60	9882	1142.1	17.73	9955
233	21.98	9726	1127.0	17.76	9799	1133.9	17.89	9872	1140.8	18.03	9945
232	21.57	9715	1125.6	18.05	9788	1132.5	18.19	9861	1139.4	18.32	9933

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.72			1.73			1.74			1.75		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
276	46.26	92	1216	10.48	107	1223	10.72	126	1233	10.97	144	1241	11.20
275	45.52	90	1214	10.60	105	1222	10.86	123	1231	11.10	141	1239	11.34
274	44.78	88	1213	10.74	103	1220	11.00	121	1229	11.24	139	1238	11.49
273	44.06	86	1212	10.87	101	1219	11.12	119	1228	11.39	137	1237	11.63
272	43.35	83	1210	11.00	99	1218	11.26	116	1226	11.51	134	1235	11.77
271	42.64	81	1208	11.15	96	1216	11.40	114	1225	11.66	132	1234	11.91
270	41.95	79	1207	11.29	94	1214	11.54	112	1224	11.80	129	1232	12.06
269	41.26	77	1206	11.43	92	1213	11.69	109	1222	11.94	127	1231	12.20
268	40.58	75	1204	11.57	90	1212	11.84	107	1220	12.10	124	1229	12.36
267	39.91	73	1203	11.72	88	1210	11.99	105	1219	12.25	122	1227	12.52
266	39.26	71	1202	11.87	86	1209	12.14	102	1217	12.40	120	1226	12.68
265	38.60	69	1200	12.03	83	1207	12.30	100	1216	12.56	117	1224	12.84
264	37.96	67	1199	12.19	81	1206	12.45	98	1214	12.71	115	1223	13.00
263	37.33	65	1197	12.34	79	1204	12.60	95	1212	12.88	113	1222	13.15
262	36.71	62	1195	12.50	77	1203	12.77	93	1211	13.04	110	1220	13.32
261	36.09	60	1194	12.67	75	1202	12.94	91	1210	13.20	108	1218	13.49
260	35.48	58	1193	12.84	73	1200	13.10	88	1208	13.38	105	1217	13.66
259	34.88	56	1191	13.00	70	1198	13.28	86	1207	13.55	103	1215	13.84
258	34.29	54	1190	13.18	68	1197	13.45	84	1205	13.73	101	1214	14.01
257	33.71	52	1189	13.36	66	1196	13.62	81	1203	13.90	98	1212	14.20
256	33.14	50	1187	13.54	64	1194	13.80	79	1202	14.09	96	1211	14.38
255	32.57	48	1186	13.70	62	1193	13.99	77	1201	14.28	93	1209	14.56
254	32.01	46	1184	13.90	60	1192	14.17	74	1199	14.46	91	1208	14.57
253	31.46	44	1183	14.09	58	1190	14.35	72	1197	14.65	89	1206	14.94
252	30.92	42	1182	14.28	55	1188	14.54	70	1196	14.83	86	1204	15.12
251	30.38	40	1180	14.46	53	1187	14.73	68	1195	15.03	84	1203	15.33
250	29.86	37	1178	14.66	51	1186	14.93	65	1193	15.24	81	1201	15.54
249	29.34	35	1177	14.86	49	1184	15.12	63	1191	15.45	79	1200	15.75
248	28.82	33	1176	15.05	47	1183	15.33	61	1190	15.65	77	1199	15.95
247	28.32	31	1174	15.27	45	1182	15.54	59	1189	15.86	74	1197	16.18
246	27.82	29	1173	15.48	43	1180	15.75	57	1188	16.08	72	1195	16.39
245	27.33	27	1172	15.69	41	1179	15.95	54	1186	16.30	70	1194	16.60
244	26.85	25	1170	15.90	39	1177	16.18	52	1184	16.51	67	1192	16.84
243	26.37	23	1169	16.11	36	1175	16.40	50	1183	16.75	65	1191	17.07
242	25.90	21	1167	16.33	34	1174	16.62	48	1181	16.98	62	1189	17.30
241	25.44	19	1166	16.55	32	1173	16.85	46	1180	17.21	60	1188	17.54
240	24.98	17	1165	16.78	30	1171	17.08	44	1179	17.45	58	1186	17.80
239	24.53	15	1163	17.00	28	1170	17.32	42	1177	17.70	56	1185	18.04
238	24.09	13	1162	17.24	26	1169	17.57	39	1175	17.95	53	1183	18.30
237	23.66	11	1160	17.48	24	1167	17.81	37	1174	18.20	51	1182	18.55
236	23.23	9	1159	17.71	22	1166	18.06	35	1173	18.46	49	1180	18.80
235	22.80	7	1158	17.97	20	1165	18.32	33	1172	18.72	46	1178	19.08
234	22.39	5	1156	18.21	18	1163	18.59	31	1170	18.99	44	1177	19.35
233	21.98	3	1155	18.49	16	1162	18.85	29	1169	19.24	42	1176	19.62
232	21.57	1	1153	18.75	14	1160	19.12	27	1168	19.50	40	1174	19.90
231	21.18	0.9995	1151.9	18.90	12	1159	19.40	25	1166	19.77	37	1172	20.18

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.88			1.89			1.90					
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
228	20.02	9673	1120.2	19.28	9744	1127.1	19.42	9816	1134.0	19.56	9888	1140.8	19.71
227	19.64	9662	1118.9	19.60	9734	1125.8	19.75	9805	1132.7	19.90	9877	1139.5	20.04
226	19.28	9651	1117.6	19.95	9723	1124.4	20.10	9795	1131.3	20.25	9866	1138.1	20.39
225	18.91	9640	1116.3	20.28	9712	1123.1	20.43	9783	1129.9	20.58	9855	1136.8	20.73
224	18.56	9630	1114.9	20.63	9701	1121.7	20.78	9773	1128.5	20.93	9844	1135.4	21.09
223	18.21	9620	1113.6	20.98	9691	1120.4	21.14	9762	1127.2	21.29	9833	1134.0	21.45
222	17.86	9609	1112.2	21.33	9680	1119.0	21.49	9751	1125.8	21.65	9822	1132.6	21.81
221	17.52	9600	1110.9	21.70	9670	1117.7	21.86	9741	1124.5	22.03	9812	1131.3	22.19
220	17.19	9589	1109.5	22.08	9660	1116.3	22.25	9731	1123.1	22.41	9801	1129.9	22.57
219	16.86	9578	1108.1	22.47	9648	1114.9	22.64	9719	1121.7	22.80	9790	1128.5	22.97
218	16.53	9566	1106.7	22.86	9637	1113.5	23.03	9707	1120.3	23.20	9778	1127.0	23.37
217	16.21	9556	1105.4	23.26	9626	1112.1	23.43	9696	1118.9	23.60	9767	1125.6	23.77
216	15.90	9545	1104.0	23.66	9615	1110.7	23.84	9686	1117.5	24.01	9756	1124.3	24.18
215	15.59	9535	1102.7	24.08	9605	1109.4	24.25	9675	1116.2	24.43	9745	1122.9	24.61
214	15.29	9524	1101.3	24.51	9594	1108.0	24.69	9664	1114.8	24.86	9734	1121.5	25.04
213	14.99	9514	1100.0	24.94	9583	1106.7	25.12	9653	1113.4	25.30	9723	1120.1	25.48
212	14.70	9503	1098.6	25.33	9573	1105.3	25.52	9642	1112.0	25.71	9711	1118.7	25.89
211	14.41	9492	1097.3	25.73	9562	1103.9	25.92	9631	1110.6	26.11	9700	1117.3	26.30
210	14.12	9482	1095.9	26.20	9551	1102.5	26.39	9620	1109.2	26.58	9689	1115.9	26.77
209	13.84	9471	1094.4	26.67	9540	1101.1	26.86	9609	1107.8	27.06	9678	1114.5	27.25
208	13.57	9460	1093.1	27.15	9529	1099.8	27.35	9598	1106.4	27.55	9667	1113.1	27.74
207	13.29	9449	1091.7	27.65	9518	1098.4	27.85	9587	1105.0	28.05	9656	1111.7	28.25
206	13.03	9439	1090.3	28.16	9507	1097.0	28.36	9576	1103.6	28.56	9644	1110.3	28.77
205	12.77	9428	1088.9	28.66	9496	1095.6	28.87	9565	1102.2	29.08	9633	1108.9	29.29
204	12.51	9417	1087.6	29.18	9486	1094.2	29.40	9554	1100.8	29.61	9622	1107.5	29.82
203	12.25	9407	1086.2	29.72	9475	1092.8	29.93	9543	1099.4	30.15	9611	1106.1	30.36
202	12.01	9397	1084.9	30.26	9464	1091.5	30.48	9532	1098.1	30.69	9600	1104.7	30.91
201	11.76	9387	1083.5	30.83	9455	1090.1	31.05	9522	1096.7	31.27	9590	1103.3	31.49
200	11.52	9376	1082.1	31.39	9444	1088.7	31.62	9511	1095.3	31.84	9579	1101.9	32.07
199	11.28	9365	1080.7	31.97	9433	1087.3	32.20	9500	1093.8	32.43	9568	1100.4	32.66
198	11.05	9355	1079.3	32.56	9422	1085.9	32.80	9490	1092.5	33.03	9557	1099.1	33.27
197	10.82	9343	1077.8	33.17	9410	1084.4	33.41	9478	1091.0	33.65	9545	1097.5	33.88
196	10.60	9332	1076.4	33.79	9399	1083.0	34.04	9466	1089.5	34.28	9533	1096.1	34.52
195	10.38	9322	1075.1	34.44	9389	1081.6	34.68	9456	1088.2	34.93	9523	1094.7	35.18
194	10.16	9311	1073.7	35.08	9378	1080.2	35.34	9445	1086.7	35.59	9511	1093.3	35.84
193	9.95	9301	1072.3	35.75	9368	1078.8	36.01	9434	1085.4	36.26	9501	1091.9	36.52
192	9.74	9290	1070.9	36.44	9357	1077.4	36.70	9423	1083.9	36.96	9489	1090.4	37.22
191	9.53	9279	1069.5	37.13	9345	1076.0	37.39	9412	1082.5	37.66	9478	1089.0	37.92
190	9.33	9269	1068.1	37.84	9335	1074.6	38.11	9401	1081.1	38.38	9467	1087.6	38.65
189	9.13	9259	1066.8	38.57	9325	1073.2	38.85	9391	1079.7	39.12	9457	1086.2	39.40
188	8.94	9248	1065.3	39.31	9313	1071.8	39.59	9379	1078.3	39.87	9445	1084.7	40.15
187	8.75	9237	1063.9	40.07	9303	1070.4	40.36	9369	1076.9	40.64	9434	1083.3	40.93
186	8.56	9226	1062.5	40.85	9292	1069.0	41.14	9357	1075.4	41.43	9423	1081.9	41.72
185	8.37	9216	1061.1	41.66	9281	1067.6	41.95	9347	1074.0	42.25	9412	1080.5	42.54
184	8.19	9205	1059.7	42.48	9270	1066.1	42.78	9335	1072.6	43.08	9401	1079.0	43.38
183	8.01	9194	1058.3	43.31	9259	1064.7	43.62	9325	1071.2	43.93	9390	1077.6	44.23
182	7.84	9184	1056.9	44.17	9249	[illegible]	44.48	9314	[illegible]	[illegible]	9379	[illegible]	[illegible]

Temperatu Degrees	Pressure, Po per Squa Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	
228	20.02	9960	1147.7	19.85	6	1155	20.21	18	1161	20.62	31	1168	21
227	19.64	9949	1146.4	20.19	4	1153	20.52	16	1160	20.91	29	1167	21
226	19.28	9938	1145.0	20.54	1	1151	20.82	14	1158	21.21	27	1166	21
225	18.91	9926	1143.6	20.89	9998	1150.4	21.04	12	1157	21.52	25	1164	21
224	18.56	9915	1142.2	21.24	9987	1149.0	21.39	10	1155	21.84	23	1163	22
223	18.21	9904	1140.9	21.60	9975	1147.7	21.76	8	1154	22.16	20	1161	22
222	17.86	9893	1139.5	21.96	9964	1146.3	22.12	6	1153	22.48	18	1159	22
221	17.52	9883	1138.1	22.35	9954	1144.9	22.51	4	1151	22.81	16	1158	23
220	17.19	9872	1136.7	22.74	9943	1143.5	22.90	2	1150	23.16	14	1157	23
219	16.86	9860	1135.3	23.13	9931	1142.1	23.30	0	1149	23.50	12	1155	24
218	16.53	9848	1133.8	23.54	9919	1140.6	23.71	9989	1147.3	23.87	10	1154	24
217	16.21	9837	1132.4	23.94	9907	1139.2	24.11	9977	1145.9	24.29	8	1153	24
216	15.90	9826	1131.0	24.36	9896	1137.8	24.53	9966	1144.5	24.71	6	1151	25
215	15.59	9815	1129.6	24.78	9885	1136.4	24.96	9955	1143.1	25.14	4	1150	25
214	15.29	9803	1128.2	25.22	9873	1135.0	25.40	9943	1141.7	25.58	2	1148	25
213	14.99	9792	1126.8	25.67	9862	1133.6	25.85	9931	1140.3	26.03	0	1147	2
212	14.70	9781	1125.4	26.08	9850	1132.2	26.26	9920	1138.9	26.45	9989	1145.6	2
211	14.41	9770	1124.0	26.49	9839	1130.8	26.67	9908	1137.5	26.86	9978	1144.2	2
210	14.12	9759	1122.6	26.96	9828	1129.3	27.15	9897	1136.0	27.35	9966	1142.7	2
209	13.84	9747	1121.2	27.45	9816	1127.9	27.64	9885	1134.6	27.84	9954	1141.2	2
208	13.57	9736	1119.8	27.94	9805	1126.5	28.14	9873	1133.1	28.34	9942	1139.8	2
207	13.29	9724	1118.4	28.45	9793	1125.0	28.65	9862	1131.7	28.86	9930	1138.4	2
206	13.03	9713	1116.9	28.97	9782	1123.6	29.18	9850	1130.3	29.38	9919	1136.9	2
205	12.77	9702	1115.5	29.49	9770	1122.2	29.70	9839	1128.8	29.91	9907	1135.5	3
204	12.51	9690	1114.1	30.03	9759	1120.7	30.24	9827	1127.4	30.45	9895	1134.0	3
203	12.25	9679	1112.7	30.58	9747	1119.3	30.79	9815	1125.9	31.01	9883	1132.6	3
202	12.01	9668	1111.3	31.13	9736	1117.9	31.35	9804	1124.5	31.57	9872	1131.2	3
201	11.76	9658	1109.9	31.72	9726	1116.5	31.94	9794	1123.1	32.16	9861	1129.7	3
200	11.52	9647	1108.4	32.30	9714	1115.0	32.52	9782	1121.6	32.75	9850	1128.2	3
199	11.28	9635	1107.0	32.89	9703	1113.6	33.12	9770	1120.2	33.36	9838	1126.8	3
198	11.05	9624	1105.6	33.50	9692	1112.2	33.74	9759	1118.8	33.97	9826	1125.4	3
197	10.82	9612	1104.1	34.12	9679	1110.7	34.36	9746	1117.2	34.60	9814	1123.8	3
196	10.60	9601	1102.6	34.76	9668	1109.2	35.01	9735	1115.8	35.25	9802	1122.3	3
195	10.38	9590	1101.3	35.42	9657	1107.6	35.67	9724	1114.3	35.92	9790	1120.9	3
194	10.16	9578	1099.8	36.09	9645	1106.3	36.34	9712	1112.9	36.59	9778	1119.4	3
193	9.95	9567	1098.4	36.78	9634	1104.9	37.03	9701	1111.5	37.29	9767	1118.0	3
192	9.74	9556	1097.0	37.48	9622	1103.5	37.74	9689	1110.0	38.00	9755	1116.5	3
191	9.53	9544	1095.5	38.19	9611	1102.0	38.45	9677	1108.5	38.72	9743	1115.0	3
190	9.33	9533	1094.1	38.92	9600	1100.6	39.19	9666	1107.1	39.46	9732	1113.6	3
189	9.13	9523	1092.7	39.67	9589	1099.2	39.95	9655	1105.7	40.22	9721	1112.1	4
188	8.94	9511	1091.2	40.43	9577	1097.7	40.71	9643	1104.2	40.99	9709	1110.6	4
187	8.75	9500	1089.8	41.21	9566	1096.3	41.50	9631	1102.7	41.78	9697	1109.2	4
186	8.56	9488	1088.3	42.01	9554	1094.8	42.31	9620	1101.2	42.60	9685	1107.7	4
185	8.37	9477	1086.9	42.84	9543	1093.4	43.13	9608	1099.8	43.43	9674	1106.3	4
184	8.19	9466	1085.4	43.68	9531	1091.9	43.99	9596	1098.3	44.29	9662	1104.7	
183	8.01	9455	1084.0	44.54	9520	1090.4	44.85	9585	1096.9	45.16	9650	1103.3	
182	7.84	9444	1082.6	45.42	9509	1089.0	45.73	9574	1095.4	46.04	9639	1101.8	
181	7.67	9433	1081.1	46.32	9498	1087.5	46.63	9562	1093.9	46.95	9627	1100.3	

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.68			1.69								
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	9162	1054.0	45.94	9227	1060.4	46.26	9292	1066.8	46.59	9356	1073.2	46.91
179	7.34	9152	1052.6	46.85	9216	1059.0	47.18	9281	1065.4	47.51	9346	1071.7	47.84
178	7.17	9141	1051.2	47.78	9206	1057.6	48.12	9270	1063.9	48.46	9335	1070.3	48.79
177	7.01	9131	1049.8	48.75	9195	1056.1	49.09	9259	1062.5	49.44	9324	1068.9	49.78
176	6.86	9120	1048.3	49.74	9184	1054.7	50.09	9248	1061.0	50.44	9312	1067.4	50.79
175	6.70	9109	1046.9	50.74	9173	1053.3	51.09	9237	1059.6	51.45	9301	1065.9	51.81
174	6.55	9099	1045.5	51.77	9162	1051.8	52.13	9226	1058.2	52.50	9290	1064.5	52.86
173	6.41	9088	1044.1	52.83	9152	1050.4	53.20	9215	1056.7	53.57	9279	1063.1	53.94
172	6.26	9077	1042.7	53.91	9141	1049.0	54.29	9205	1055.3	54.67	9268	1061.6	55.04
171	6.12	9066	1041.2	55.00	9130	1047.5	55.39	9193	1053.8	55.77	9256	1060.1	56.16
170	5.98	9056	1039.8	56.14	9119	1046.1	56.54	9182	1052.3	56.93	9245	1058.6	57.32
169	5.84	9045	1038.3	57.32	9108	1044.6	57.72	9171	1050.9	58.12	9234	1057.2	58.52
168	5.71	9034	1036.9	58.52	9097	1043.2	58.92	9160	1049.5	59.33	9223	1055.7	59.74
167	5.58	9024	1035.5	59.75	9086	1041.7	60.16	9149	1048.0	60.58	9212	1054.3	60.99
166	5.45	9013	1034.0	60.99	9076	1040.3	61.41	9138	1046.5	61.84	9201	1052.8	62.26
165	5.32	9002	1032.6	62.27	9065	1038.8	62.70	9127	1045.1	63.13	9190	1051.3	63.57
164	5.20	8991	1031.1	63.59	9054	1037.4	64.03	9116	1043.6	64.47	9179	1049.9	64.91
163	5.08	8981	1029.7	64.93	9043	1035.9	65.38	9105	1042.2	65.83	9167	1048.4	66.28
162	4.960	8970	1028.3	66.32	9032	1034.5	66.77	9094	1040.7	67.23	9156	1046.9	67.69
161	4.844	8961	1026.9	67.74	9023	1033.1	68.21	9085	1039.3	68.68	9146	1045.5	69.15
160	4.729	8950	1025.4	69.19	9012	1031.6	69.67	9073	1037.8	70.15	9135	1044.0	70.62
159	4.617	8939	1023.9	70.68	9001	1030.1	71.17	9062	1036.3	71.66	9124	1042.5	72.14
158	4.508	8928	1022.5	72.21	8990	1028.7	72.71	9051	1034.8	73.21	9113	1041.0	73.70
157	4.400	8918	1021.1	73.79	8979	1027.2	74.30	9041	1033.4	74.80	9102	1039.6	75.31
156	4.295	8907	1019.6	75.41	8968	1025.8	75.93	9030	1031.9	76.44	9091	1038.1	76.96
155	4.191	8896	1018.1	77.05	8957	1024.3	77.58	9018	1030.4	78.11	9079	1036.6	78.64
154	4.090	8885	1016.7	78.74	8946	1022.8	79.28	9007	1028.9	79.82	9068	1035.1	80.36
153	3.991	8875	1015.2	80.48	8936	1021.4	81.03	8997	1027.5	81.58	9057	1033.6	82.13
152	3.894	8864	1013.8	82.27	8925	1019.9	82.83	8985	1026.0	83.39	9046	1032.1	83.96
151	3.799	8853	1012.3	84.10	8914	1018.4	84.67	8974	1024.5	85.25	9035	1030.6	85.82
150	3.706	8843	1010.8	85.99	8903	1017.0	86.57	8964	1023.0	87.16	9024	1029.1	87.75
149	3.615	8832	1009.4	87.91	8892	1015.4	88.51	8952	1021.5	89.11	9012	1027.6	89.71
148	3.526	8821	1007.9	89.89	8881	1014.0	90.50	8942	1020.1	91.11	9002	1026.2	91.73
147	3.439	8810	1006.4	91.89	8870	1012.5	92.52	8930	1018.6	93.14	8990	1024.6	93.77
146	3.353	8800	1005.0	93.98	8860	1011.0	94.62	8920	1017.1	95.26	8979	1023.2	95.90
145	3.270	8789	1003.5	96.15	8849	1009.5	96.81	8908	1015.6	97.46	8968	1021.6	98.11
144	3.188	8778	1002.0	98.32	8838	1008.1	98.99	8897	1014.1	99.65	8957	1020.1	100.3
143	3.108	8767	1000.5	100.6	8827	1006.6	101.2	8886	1012.6	101.9	8945	1018.6	102.6
142	3.029	8757	999.1	102.9	8816	1005.1	103.6	8875	1011.1	104.3	8935	1017.1	105.0
141	2.953	8747	997.6	105.3	8806	1003.6	106.0	8865	1009.6	106.7	8924	1015.6	107.5
140	2.877	8736	996.1	107.8	8795	1002.1	108.5	8854	1008.1	109.3	8913	1014.1	110.0
139	2.804	8725	994.6	110.4	8784	1000.6	111.1	8843	1006.6	111.9	8902	1012.6	112.6
138	2.732	8715	993.2	112.9	8774	999.1	113.7	8832	1005.1	114.5	8891	1011.1	115.2
137	2.662	8704	991.6	115.6	8762	997.6	116.4	8821	1003.6	117.1	8879	1009.5	117.9
136	2.593	8693	990.2	118.3	8751	996.1	119.1	8810	1002.1	119.9	8868	1008.0	120.7
135	2.526	8682	988.7	121.1	8741	994.6	121.9	8799	1000.6	122.7	8857	1006.5	123.6
134	2.460	8671	987.1	124.1	8729	993.1	124.9	8787	999.0	125.7	8846	1005.0	126.6

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.72			1.73			1.74			1.75		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	9421	1079.6	47.24	9486	1086.0	47.56	9550	1092.4	47.89	9615	1098.7	48.21
179	7.34	9410	1078.1	48.17	9475	1084.5	48.50	9539	1090.9	48.83	9604	1097.3	49.16
178	7.17	9399	1076.7	49.13	9463	1083.1	49.46	9528	1089.4	49.80	9592	1095.8	50.14
177	7.01	9388	1075.2	50.12	9452	1081.6	50.46	9516	1088.0	50.81	9581	1094.3	51.15
176	6.86	9376	1073.7	51.14	9440	1080.1	51.49	9504	1086.4	51.84	9568	1092.8	52.19
175	6.70	9365	1072.3	52.16	9429	1078.6	52.52	9493	1085.0	52.88	9557	1091.3	53.23
174	6.55	9354	1070.8	53.22	9418	1077.2	53.59	9481	1083.5	53.95	9545	1089.8	54.31
173	6.41	9343	1069.4	54.31	9406	1075.7	54.68	9470	1082.0	55.05	9534	1088.4	55.42
172	6.26	9332	1067.9	55.42	9395	1074.2	55.80	9459	1080.6	56.17	9522	1086.9	56.55
171	6.12	9320	1066.4	56.54	9383	1072.7	56.93	9446	1079.0	57.31	9510	1085.3	57.70
170	5.98	9308	1064.9	57.71	9372	1071.2	58.10	9435	1077.5	58.50	9498	1083.8	58.89
169	5.84	9297	1063.5	58.92	9360	1069.8	59.32	9423	1076.0	59.72	9486	1082.3	60.12
168	5.71	9286	1062.0	60.15	9349	1068.3	60.55	9412	1074.6	60.96	9475	1080.8	61.37
167	5.58	9275	1060.5	61.41	9339	1066.8	61.82	9300	1073.1	62.24	9463	1079.3	62.66
166	5.45	9263	1059.1	62.69	9326	1065.3	63.11	9389	1071.6	63.53	9451	1077.8	63.96
165	5.32	9252	1057.6	64.00	9315	1063.8	64.43	9377	1070.1	64.86	9440	1076.3	65.29
164	5.20	9241	1056.1	65.35	9303	1062.3	65.79	9366	1068.6	66.23	9428	1074.8	66.67
163	5.08	9230	1054.6	66.73	9292	1060.8	67.18	9354	1067.1	67.63	9416	1073.3	68.08
162	4.960	9218	1053.1	68.15	9280	1059.3	68.61	9342	1065.5	69.07	9404	1071.8	69.53
161	4.844	9208	1051.7	69.62	9270	1057.9	70.08	9332	1064.1	70.55	9394	1070.3	71.02
160	4.729	9197	1050.2	71.10	9259	1056.4	71.58	9321	1062.6	72.06	9382	1068.8	72.54
159	4.617	9185	1048.7	72.63	9247	1054.9	73.12	9309	1061.1	73.61	9371	1067.2	74.09
158	4.508	9174	1047.2	74.20	9236	1053.4	74.70	9297	1059.5	75.20	9359	1065.7	75.69
157	4.400	9163	1045.7	75.82	9224	1051.9	76.33	9286	1058.1	76.83	9348	1064.2	77.34
156	4.295	9152	1044.2	77.48	9213	1050.4	78.00	9274	1056.5	78.52	9336	1062.7	79.04
155	4.191	9141	1042.7	79.17	9202	1048.9	79.70	9263	1055.0	80.22	9324	1061.2	80.75
154	4.090	9129	1041.2	80.90	9190	1047.3	81.44	9251	1053.5	81.98	9312	1059.6	82.52
153	3.991	9118	1039.7	82.68	9179	1045.9	83.24	9240	1052.0	83.79	9301	1058.1	84.34
152	3.894	9107	1038.2	84.52	9167	1044.3	85.08	9228	1050.5	85.64	9289	1056.6	86.21
151	3.799	9095	1036.7	86.40	9156	1042.8	86.97	9216	1048.9	87.54	9277	1055.0	88.12
150	3.706	9084	1035.2	88.34	9145	1041.3	88.92	9205	1047.4	89.51	9265	1053.5	90.10
149	3.615	9073	1033.7	90.31	9133	1039.8	90.91	9193	1045.9	91.51	9253	1052.0	92.11
148	3.526	9062	1032.2	92.34	9122	1038.3	92.95	9182	1044.4	93.56	9242	1050.5	94.18
147	3.439	9050	1030.7	94.39	9110	1036.8	95.02	9170	1042.8	95.64	9230	1048.9	96.27
146	3.353	9039	1029.2	96.54	9099	1035.3	97.18	9159	1041.3	97.82	9219	1047.4	98.45
145	3.270	9028	1027.7	98.76	9087	1033.7	99.42	9147	1039.8	100.1	9207	1045.8	100.7
144	3.188	9016	1026.2	101.0	9076	1032.2	101.7	9136	1038.3	102.3	9195	1044.3	103.0
143	3.108	9005	1024.6	103.3	9064	1030.7	104.0	9124	1036.7	104.6	9183	1042.7	105.3
142	3.029	8994	1023.1	105.7	9053	1029.2	106.4	9112	1035.2	107.1	9171	1041.2	107.8
141	2.953	8984	1021.6	108.2	9043	1027.6	108.9	9102	1033.6	109.6	9161	1039.7	110.3
140	2.877	8972	1020.1	110.7	9031	1026.1	111.4	9090	1032.1	112.2	9149	1038.1	112.9
139	2.804	8961	1018.6	113.4	9020	1024.6	114.1	9078	1030.5	114.8	9137	1036.5	115.6
138	2.732	8950	1017.1	116.0	9008	1023.0	116.7	9067	1029.0	117.5	9126	1035.0	118.3
137	2.662	8938	1015.5	118.7	8996	1021.5	119.5	9055	1027.4	120.2	9114	1033.4	121.0
136	2.593	8927	1014.0	121.5	8985	1019.9	122.3	9043	1025.9	123.1	9102	1031.8	123.9
135	2.526	8915	1012.5	124.4	8974	1018.4	125.2	9032	1024.4	126.0	9090	1030.3	126.8
134	2.460	8904	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Temperature, Degrees Fah[renheit]	Pressure, Pou[nds] per Square Inch.												
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
132	2.333	8650	984.2	130.1	8708	990.1	131.0	8765	996.0	131.8	8823	1001.9	132.7
131	2.272	8639	982.7	133.2	8697	988.6	134.1	8754	994.5	135.0	8812	1000.4	135.9
130	2.212	8628	981.2	136.4	8686	987.1	137.3	8743	993.0	138.2	8801	998.9	139.1
129	2.153	8618	979.7	139.8	8675	985.6	140.8	8732	991.5	141.7	8790	997.3	142.7
128	2.096	8607	978.2	143.2	8664	984.1	144.2	8721	989.9	145.1	8779	995.8	146.1
127	2.040	8596	976.7	146.7	8653	982.6	147.7	8710	988.4	148.7	8767	994.3	149.7
126	1.985	8585	975.2	150.4	8642	981.0	151.4	8699	986.9	152.4	8756	992.7	153.4
125	1.932	8574	973.5	154.2	8631	979.5	155.2	8688	985.4	156.2	8745	991.2	157.2
124	1.880	8563	972.2	158.0	8620	978.0	159.0	8677	983.8	160.1	8734	989.7	161.1
123	1.829	8553	970.7	161.9	8609	976.5	163.0	8666	982.3	164.0	8722	988.2	165.1
122	1.779	8542	969.1	166.0	8598	974.9	167.1	8655	980.7	168.2	8711	986.6	169.3
121	1.730	8532	967.6	170.2	8589	973.4	171.3	8645	979.2	172.5	8701	985.1	173.6
120	1.683	8521	966.1	174.5	8577	971.9	175.7	8634	977.7	176.8	8690	983.5	178.0
119	1.636	8510	964.6	179.0	8566	970.4	180.2	8623	976.2	181.3	8679	982.0	182.5
118	1.591	8500	963.1	183.6	8556	968.9	184.8	8612	974.7	186.0	8668	980.4	187.2
117	1.547	8489	961.6	188.3	8545	967.4	189.5	8601	973.1	190.8	8656	978.9	192.0
116	1.504	8478	960.0	193.1	8533	965.8	194.4	8589	971.5	195.7	8645	977.3	196.9
115	1.462	8467	958.5	198.1	8523	964.3	199.4	8579	970.0	200.7	8634	975.8	202.0
114	1.421	8456	957.0	203.3	8512	962.7	204.6	8567	968.5	206.0	8623	974.2	207.3
113	1.381	8445	955.5	208.6	8501	961.2	210.0	8556	967.0	211.3	8611	972.7	212.7
112	1.342	8435	953.9	214.1	8490	959.7	215.5	8545	965.4	216.9	8600	971.1	218.3
111	1.304	8424	952.4	219.8	8479	958.2	221.2	8534	963.9	222.6	8589	969.6	224.1
110	1.266	8413	950.9	225.6	8468	956.6	227.0	8523	962.3	228.5	8578	968.8	230.0
109	1.230	8402	949.4	231.6	8457	955.1	233.1	8512	960.7	234.6	8566	966.4	236.1
108	1.195	8392	947.8	237.7	8446	953.5	239.3	8501	959.1	240.8	8555	964.8	242.4
107	1.160	8380	946.3	244.0	8435	952.0	245.6	8489	957.6	247.2	8544	967.3	248.8
106	1.127	8370	944.7	250.6	8424	950.4	252.2	8478	956.0	253.8	8533	961.7	255.5
105	1.094	8359	943.2	257.5	8413	948.8	259.1	8467	954.5	260.8	8522	960.1	262.5
104	1.062	8348	941.6	264.5	8402	947.2	266.2	8456	952.9	267.9	8510	958.5	269.6
103	1.031	8337	940.1	271.7	8391	945.7	273.5	8445	951.4	275.2	8499	957.0	277.0
102	1.000	8326	938.5	279.1	8380	944.1	280.9	8434	949.8	282.7	8488	955.4	284.5
101	0.971	8316	937.0	286.8	8370	942.6	288.6	8424	948.2	290.5	8478	953.8	292.3
100	0.942	8305	935.4	294.6	8359	941.0	296.5	8412	946.6	298.4	8466	952.2	300.3
99	0.914	8294	933.9	302.9	8348	939.5	304.9	8401	945.0	306.8	8455	950.6	308.8
98	0.887	8284	932.3	311.4	8337	937.9	313.4	8390	943.4	315.4	8444	949.0	317.4
97	0.860	8273	930.8	320.1	8326	936.4	322.3	8379	941.9	324.2	8432	947.5	326.2
96	0.834	8263	929.3	329.2	8316	934.8	331.3	8369	940.4	333.4	8422	946.0	335.5
95	0.809	8252	927.8	338.5	8305	933.3	340.7	8358	938.8	342.8	8411	944.4	345.0
94	0.784	8241	926.2	348.1	8294	931.7	350.3	8347	937.2	352.6	8399	942.8	354.8
93	0.761	8230	924.6	358.0	8283	930.1	360.3	8335	935.7	362.6	8388	941.3	364.9
92	0.737	8219	923.0	368.3	8272	928.5	370.7	8324	934.1	373.0	8377	939.6	375.4
91	0.715	8208	921.5	379.0	8261	927.0	381.4	8313	932.5	383.8	8365	938.0	386.2
90	0.693	8197	919.9	389.9	8250	925.4	392.3	8302	930.9	394.8	8354	936.4	397.3
89	0.671	8186	918.3	401.1	8238	923.8	403.7	8291	929.3	406.2	8343	934.8	408.8
88	0.650	8175	916.7	412.7	8227	922.2	415.3	8279	927.7	417.9	8331	933.1	420.6
87	0.630	8165	915.2	424.9	8217	920.6	427.6	8269	926.1	430.3	8320	931.6	433.0
86	0.610	8154	913.6	437.4	8206	919.0	440.1	8257	924.5	442.9	8309	930.0	445.7

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.42			1.43			1.44			1.45		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
132	2.333	8881	1007.8	133.6	8939	1013.7	134.4	8997	1019.6	135.3	9055	1025.6	136.2
131	2.272	8870	1006.3	136.8	8928	1012.2	137.7	8985	1018.1	138.6	9043	1024.0	139.4
130	2.212	8859	1004.8	140.1	8916	1010.7	141.0	8974	1016.6	141.9	9031	1022.5	142.8
129	2.153	8847	1003.2	143.6	8905	1009.1	144.5	8962	1015.0	145.5	9020	1020.9	146.4
128	2.096	8836	1001.7	147.0	8893	1007.6	148.0	8951	1013.4	148.9	9008	1019.3	149.9
127	2.040	8825	1000.2	150.6	8882	1006.1	151.6	8939	1011.9	152.6	8996	1017.8	153.6
126	1.985	8813	998.6	154.4	8870	1004.5	155.4	8927	1010.3	156.4	8984	1016.2	157.4
125	1.932	8802	997.1	158.3	8859	1003.0	159.3	8916	1008.8	160.3	8973	1014.7	161.3
124	1.880	8791	995.5	162.2	8847	1001.3	163.2	8904	1007.2	164.3	8961	1013.0	165.3
123	1.829	8779	994.0	166.2	8836	999.8	167.3	8892	1005.6	168.3	8949	1010.5	169.4
122	1.779	8768	992.4	170.4	8824	998.2	171.5	8881	1004.0	172.6	8937	1009.8	173.6
121	1.730	8758	990.9	174.7	8814	996.7	175.8	8870	1002.5	177.0	8927	1008.3	178.1
120	1.683	8746	989.3	179.1	8802	995.1	180.3	8859	1000.9	181.4	8915	1006.7	182.6
119	1.636	8735	987.8	183.7	8791	993.6	184.9	8847	999.4	186.1	8903	1005.1	187.2
118	1.591	8724	986.2	188.4	8780	992.0	189.6	8836	997.8	190.9	8892	1003.5	192.1
117	1.547	8712	984.6	193.2	8768	990.4	194.5	8824	996.2	195.7	8880	1001.9	197.0
116	1.504	8700	983.0	198.2	8756	988.8	199.5	8812	994.5	200.7	8868	1000.3	202.0
115	1.462	8690	981.5	203.3	8745	987.3	204.6	8801	993.0	205.9	8856	998.7	207.2
114	1.421	8678	979.9	208.6	8734	985.7	210.0	8789	991.4	211.3	8844	997.1	212.6
113	1.381	8667	978.4	214.1	8722	984.1	215.4	8777	989.8	216.8	8832	995.5	218.2
112	1.342	8656	976.8	219.7	8711	982.5	221.1	8766	988.2	222.5	8821	993.9	223.9
111	1.304	8644	975.3	225.5	8699	980.9	227.0	8754	986.6	228.4	8809	992.3	229.8
110	1.266	8633	973.7	231.4	8688	979.3	232.9	8743	985.0	234.4	8797	990.7	235.9
109	1.230	8621	972.1	237.6	8676	977.8	239.1	8731	983.4	240.6	8785	989.1	242.1
108	1.195	8610	970.5	243.9	8665	976.2	245.5	8719	981.8	247.0	8774	987.5	248.6
107	1.160	8598	968.9	250.4	8653	974.6	252.0	8707	980.2	253.6	8762	985.9	255.1
106	1.127	8587	967.3	257.1	8641	973.0	258.7	8696	978.6	260.4	8750	984.3	262.0
105	1.094	8576	965.7	264.1	8630	971.4	265.8	8684	977.0	267.5	8739	982.7	269.1
104	1.062	8564	964.1	271.3	8618	969.8	273.0	8672	975.4	274.7	8726	981.0	276.5
103	1.031	8553	962.6	278.7	8607	968.2	280.5	8661	973.8	282.3	8715	979.4	284.0
102	1.000	8542	961.0	286.3	8596	966.6	288.1	8649	972.2	289.9	8703	977.8	291.7
101	0.971	8531	959.4	294.2	8585	965.0	296.0	8639	970.6	297.9	8692	976.2	299.7
100	0.942	8519	957.8	302.2	8573	963.4	304.1	8627	969.0	306.0	8680	974.6	307.9
99	0.914	8508	956.2	310.7	8562	961.8	312.7	8615	967.4	314.6	8668	973.0	316.6
98	0.887	8497	954.6	319.4	8550	960.2	321.4	8603	965.8	323.4	8657	971.3	325.4
97	0.860	8486	953.1	328.3	8539	958.5	330.4	8592	964.2	332.4	8645	969.8	334.5
96	0.834	8475	951.5	337.6	8528	957.0	339.8	8581	962.6	341.9	8634	968.2	344.0
95	0.809	8464	949.9	347.2	8516	955.4	349.3	8569	961.0	351.5	8622	966.6	353.7
94	0.784	8452	948.3	357.0	8505	953.8	359.2	8558	959.4	361.5	8611	964.9	363.7
93	0.761	8441	946.7	367.2	8493	952.2	369.5	8546	957.8	371.8	8599	963.3	374.0
92	0.737	8429	945.1	377.7	8482	950.6	380.1	8534	956.1	382.4	8587	961.6	384.8
91	0.715	8418	943.5	388.7	8470	949.0	391.1	8523	954.5	393.5	8575	960.0	395.9
90	0.693	8406	941.9	399.8	8459	947.4	402.3	8511	952.9	404.8	8563	958.3	407.3
89	0.671	8395	940.3	411.3	8447	945.8	413.9	8499	951.3	416.5	8551	956.7	419.0
88	0.650	8383	938.6	423.2	8435	944.1	425.8	8487	949.6	428.4	8539	955.0	431.1
87	0.630	8372	937.0	435.7	8424	942.5	438.4	8476	948.0	441.1	8528	953.4	443.8
86	0.610	8361	935.4	448.5	8413	940.9	451.2	8464	946.3	454.0	8516	951.8	456.8

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.76			1.77			1.78					
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	282	1324	6.64	...	...	...	...	...	...	...	...	...
323	93.8	280	1323	6.70	...	...	...	...	...	...	...	...	...
322	92.5	277	1321	6.76	300	1330	6.93	...	...	...	...	...	...
321	91.2	275	1320	6.84	297	1328	7.00	...	...	...	...	...	...
320	90.0	272	1318	6.91	295	1327	7.07	...	...	...	...	...	...
319	88.7	270	1317	6.99	292	1325	7.14	...	...	...	...	...	...
318	87.4	267	1315	7.07	289	1323	7.22	...	...	...	...	...	...
317	86.2	265	1314	7.15	287	1322	7.30	...	...	...	...	...	...
316	85.0	262	1312	7.23	284	1321	7.38	...	...	...	...	...	...
315	83.8	260	1310	7.30	282	1319	7.47	...	...	...	...	...	...
314	82.6	257	1309	7.38	279	1318	7.55	...	...	...	...	...	...
313	81.4	255	1307	7.47	276	1316	7.64	...	...	...	...	...	...
312	80.2	252	1305	7.55	274	1315	7.72	298	1325	7.91	...	...	...
311	79.1	250	1304	7.64	271	1313	7.80	296	1324	8.00	...	...	...
310	77.9	247	1302	7.72	268	1311	7.89	293	1322	8.09	...	...	...
309	76.8	245	1301	7.81	266	1310	7.98	290	1321	8.18	...	...	...
308	75.7	242	1299	7.90	263	1308	8.07	288	1319	8.27	...	...	...
307	74.6	240	1298	7.99	261	1307	8.16	285	1318	8.36	...	...	...
306	73.5	237	1296	8.08	258	1305	8.25	282	1316	8.45	...	...	...
305	72.4	235	1295	8.17	255	1304	8.34	279	1314	8.55	...	...	...
304	71.4	232	1293	8.26	253	1302	8.44	277	1313	8.64	...	...	...
303	70.3	230	1292	8.35	250	1301	8.54	274	1311	8.74	298	1321	8.96
302	69.3	227	1290	8.45	247	1299	8.64	271	1309	8.84	295	1320	9.06
301	68.2	225	1289	8.55	245	1298	8.74	269	1308	8.95	292	1318	9.17
300	67.2	222	1287	8.64	242	1296	8.84	266	1307	9.05	290	1317	9.27
299	66.2	220	1286	8.74	240	1295	8.94	263	1305	9.16	287	1315	9.37
298	65.2	217	1284	8.85	237	1293	9.04	260	1303	9.27	284	1313	9.48
297	64.3	214	1282	8.95	235	1292	9.14	258	1302	9.38	281	1312	9.59
296	63.3	212	1281	9.05	232	1290	9.25	255	1300	9.49	278	1310	9.70
295	62.3	209	1279	9.15	229	1288	9.35	252	1298	9.59	275	1308	9.80
294	61.4	207	1278	9.26	227	1287	9.46	250	1297	9.70	272	1306	9.92
293	60.5	204	1276	9.37	224	1285	9.57	247	1295	9.80	270	1305	10.03
292	59.5	202	1275	9.49	222	1284	9.68	244	1293	9.91	267	1303	10.15
291	58.6	199	1273	9.60	219	1282	9.80	242	1292	10.02	264	1302	10.27
290	57.7	197	1272	9.70	216	1280	9.91	239	1290	10.14	261	1300	10.40
289	56.8	194	1270	9.81	214	1279	10.02	236	1289	10.26	258	1298	10.52
288	56.0	192	1269	9.93	211	1277	10.14	234	1288	10.39	255	1297	10.64
287	55.1	189	1267	10.05	209	1276	10.26	231	1286	10.50	252	1295	10.77
286	54.2	187	1266	10.17	206	1274	10.40	228	1284	10.63	250	1294	10.90
285	53.4	184	1264	10.29	203	1272	10.52	225	1282	10.75	247	1292	11.03
284	52.6	182	1262	10.41	201	1271	10.64	223	1281	10.88	244	1290	11.16
283	51.7	179	1260	10.53	198	1269	10.77	220	1279	11.00	241	1288	11.30
282	50.9	177	1259	10.66	196	1268	10.90	217	1278	11.13	238	1287	11.44
281	50.1	174	1257	10.79	193	1266	11.03	215	1276	11.27	235	1285	11.57
280	49.33	172	1256	10.92	191	1265	11.16	212	1275	11.40	232	1283	11.70
279	48.55	169	1254	11.05	188	1263	11.30	209	1273	11.54	229	1282	11.84

Temperature, Degrees Fah	Pressure, Poun per Square Inch.	1.80			1.81			1.82			1.83		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
324	95.1	...	...	...	...	...	...	...	...	...	...	...	...
323	93.8	...	...	...	...	...	...	...	...	...	...	...	...
322	92.5	...	...	...	...	...	...	...	...	...	...	...	...
321	91.2	...	...	...	...	...	...	...	...	...	...	...	...
320	90.0	...	...	...	...	...	...	...	...	...	...	...	...
319	88.7	...	...	...	...	...	...	...	...	...	...	...	...
318	87.4	...	...	...	...	...	...	...	...	...	...	...	...
317	86.2	...	...	...	...	...	...	...	...	...	...	...	...
316	85.0	...	...	...	...	...	...	...	...	...	...	...	...
315	83.8	...	...	...	...	...	...	...	...	...	...	...	...
314	82.6	...	...	...	...	...	...	...	...	...	...	...	...
313	81.4	...	...	...	...	...	...	...	...	...	...	...	...
312	80.2	...	...	...	...	...	...	...	...	...	...	...	...
311	79.1	...	...	...	...	...	...	...	...	...	...	...	...
310	77.9	...	...	...	...	...	...	...	...	...	...	...	...
309	76.8	...	...	...	...	...	...	...	...	...	...	...	...
308	75.7	...	...	...	...	...	...	...	...	...	...	...	...
307	74.6	...	...	...	...	...	...	...	...	...	...	...	...
306	73.5	...	...	...	...	...	...	...	...	...	...	...	...
305	72.4	...	...	...	...	...	...	...	...	...	...	...	...
304	71.4	...	...	...	...	...	...	...	...	...	...	...	...
303	70.3	...	...	...	...	...	...	...	...	...	...	...	...
302	69.3	...	...	...	...	...	...	...	...	...	...	...	...
301	68.2	...	...	...	...	...	...	...	...	...	...	...	...
300	67.2	...	...	...	...	...	...	...	...	...	...	...	...
299	66.2	...	...	...	...	...	...	...	...	...	...	...	...
298	65.2	...	...	...	...	...	...	...	...	...	...	...	...
297	64.3	...	...	...	...	...	...	...	...	...	...	...	...
296	63.3	...	...	...	...	...	...	...	...	...	...	...	...
295	62.3	...	...	...	...	...	...	...	...	...	...	...	...
294	61.4	298	1318	10.19	...	...	...	...	...	...	...	...	...
293	60.5	295	1316	10.30	...	...	...	...	...	...	...	...	...
292	59.5	292	1314	10.41	...	...	...	...	...	...	...	...	...
291	58.6	289	1312	10.53	...	...	...	...	...	...	...	...	...
290	57.7	286	1311	10.65	...	...	...	...	...	...	...	...	...
289	56.8	283	1309	10.77	...	...	...	...	...	...	...	...	...
288	56.0	280	1307	10.90	...	...	...	...	...	...	...	...	...
287	55.1	277	1306	11.03	...	...	...	...	...	...	...	...	...
286	54.2	274	1304	11.15	298	1314	11.43	...	...	...	...	...	...
285	53.4	271	1302	11.28	295	1313	11.56	...	...	...	...	...	...
284	52.6	269	1301	11.41	292	1311	11.69	...	...	...	...	...	...
283	51.7	266	1299	11.55	289	1309	11.82	...	...	...	...	...	...
282	50.9	263	1298	11.68	286	1307	11.95	...	...	...	...	...	...
281	50.1	260	1296	11.81	283	1306	12.09	...	...	...	...	...	...
280	49.33	257	1294	11.95	280	1304	12.23	...	...	...	...	...	...
279	48.55	254	1292	12.10	277	1302	12.38	...	...	...	...	...	...

Temperature, Degrees Fahr.	Pressure, Pound per Square Inch.	1.76			1.77			[illegible]			[illegible]		
		Quality.	Heat Contents	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
276	46.26	162	1250	11.46	180	1258	11.70	201	1268	11.96	221	1277	12.27
275	45.52	159	1248	11.60	178	1257	11.85	198	1266	12.11	218	1275	12.41
274	44.78	157	1247	11.74	175	1255	12.00	196	1265	12.26	215	1273	12.57
273	44.06	154	1245	11.88	173	1254	12.16	193	1263	12.40	212	1272	12.71
272	43.35	152	1244	12.02	170	1252	12.30	190	1261	12.57	210	1270	12.88
271	42.64	149	1242	12.17	167	1250	12.45	188	1260	12.73	207	1269	13.03
270	41.95	147	1241	12.33	165	1249	12.60	185	1258	12.88	204	1267	13.19
269	41.26	144	1239	12.49	162	1247	12.76	182	1257	13.04	201	1265	13.34
268	40.58	141	1237	12.63	160	1246	12.92	180	1255	13.20	198	1264	13.50
267	39.91	139	1235	12.80	157	1244	13.09	177	1253	13.37	195	1262	13.67
266	39.26	137	1234	12.95	155	1243	13.25	174	1252	13.54	193	1261	13.84
265	38.60	134	1232	13.11	152	1241	13.42	172	1251	13.71	190	1259	14.00
264	37.96	132	1231	13.27	150	1240	13.59	169	1249	13.89	187	1257	14.19
263	37.33	129	1229	13.44	147	1238	13.76	166	1247	14.06	184	1255	14.37
262	36.71	127	1228	13.61	145	1237	13.93	163	1245	14.24	181	1253	14.55
261	36.09	124	1226	13.78	142	1235	14.10	161	1244	14.41	178	1252	14.72
260	35.48	122	1225	13.95	139	1233	14.28	158	1242	14.60	176	1250	14.91
259	34.88	119	1223	14.15	137	1232	14.47	155	1240	14.79	173	1249	15.10
258	34.29	117	1222	14.33	134	1230	14.66	153	1239	14.99	170	1247	15.30
257	33.71	114	1220	14.51	132	1229	14.83	150	1237	15.17	167	1245	15.51
256	33.14	112	1219	14.70	129	1227	15.03	147	1236	15.38	165	1244	15.71
255	32.57	109	1217	14.89	127	1226	15.22	144	1234	15.58	162	1242	15.91
254	32.01	107	1216	15.09	124	1224	15.42	142	1232	15.78	159	1240	16.13
253	31.46	104	1214	15.29	122	1222	15.62	139	1231	15.99	156	1239	16.34
252	30.92	102	1212	15.49	119	1220	15.82	136	1229	16.19	154	1237	16.56
251	30.38	99	1210	15.68	117	1219	16.01	134	1228	16.40	151	1235	16.77
250	29.86	97	1209	15.89	114	1217	16.23	131	1226	16.61	148	1234	16.99
249	29.34	95	1208	16.10	112	1216	16.45	128	1224	16.83	145	1232	17.21
248	28.82	92	1206	16.31	109	1214	16.67	126	1223	17.05	143	1231	17.45
247	28.32	90	1205	16.52	107	1213	16.90	123	1221	19.27	140	1229	17.68
246	27.82	87	1203	16.75	104	1211	17.12	120	1219	17.50	137	1227	17.91
245	27.33	85	1202	16.98	102	1210	17.36	118	1218	17.74	134	1225	18.15
244	26.85	82	1200	17.20	99	1208	17.59	115	1216	17.97	132	1224	18.40
243	26.37	80	1198	17.44	96	1206	17.83	112	1214	18.21	129	1222	18.64
242	25.90	77	1196	17.69	94	1205	18.07	110	1213	18.46	126	1220	18.99
241	25.44	75	1195	17.91	91	1203	18.31	107	1211	18.71	124	1219	19.15
240	24.98	73	1194	18.16	89	1202	18.57	105	1210	18.96	121	1217	19.40
239	24.53	70	1192	18.40	86	1200	18.83	102	1208	19.23	119	1216	19.68
238	24.09	68	1191	18.66	84	1199	19.10	99	1206	19.50	116	1214	19.94
237	23.66	66	1189	18.93	81	1197	19.35	97	1205	19.77	113	1212	20.20
236	23.23	63	1187	19.20	79	1195	19.62	94	1203	20.04	111	1211	20.50
235	22.80	61	1186	19.46	76	1193	19.90	92	1202	20.32	108	1209	20.78
234	22.39	59	1185	19.73	74	1192	20.19	89	1200	20.60	106	1208	21.06
233	21.98	56	1183	20.00	72	1191	20.48	87	1199	20.90	103	1206	21.35
232	21.57	54	1182	20.29	69	1189	20.75	84	1197	21.20	100	1204	21.65
231	21.18	52	1180	20.59	67	1188	21.03	82	1195	21.50	98	1203	21.95
230	20.78	50	1179	20.88	64	1186	21.34	79	1193	21.80	95	1201	22.27

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.80			1.81			1.82			1.83		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
276	46.26	245	1287	12.54	267	1297	12.81	293	1308	13.11	...	...	...
275	45.52	242	1286	12.69	264	1295	12.98	289	1306	13.27	...	...	...
274	44.78	239	1284	12.84	261	1293	13.13	286	1304	13.44	...	...	...
273	44.06	236	1282	13.00	258	1292	13.29	283	1302	13.60	...	...	...
272	43.35	233	1280	13.15	255	1290	13.45	280	1301	13.77	...	...	...
271	42.64	230	1279	13.30	252	1288	13.61	277	1299	13.93	299	13.08	14.25
270	41.95	227	1277	13.48	249	1287	13.78	273	1297	14.10	296	1306	14.43
269	41.26	224	1275	13.64	246	1285	13.94	270	1295	14.28	293	1305	14.60
268	40.58	221	1274	13.81	243	1283	14.11	267	1293	14.46	289	1302	14.78
267	39.91	218	1272	13.99	239	1281	14.30	263	1291	14.62	286	1301	14.96
266	39.26	215	1270	14.16	236	1279	14.49	260	1290	14.81	282	1299	15.15
265	38.60	212	1268	14.34	233	1277	14.65	257	1288	15.00	279	1297	15.34
264	37.96	209	1267	14.51	230	1276	14.82	254	1286	15.20	276	1295	15.54
263	37.33	206	1265	14.70	227	1274	15.01	250	1284	15.39	272	1293	15.73
262	36.71	203	1263	14.89	224	1272	15.20	247	1282	15.59	269	1291	15.92
261	36.09	200	1262	15.08	221	1271	15.40	244	1281	15.79	266	1290	16.13
260	35.48	197	1260	15.27	217	1269	15.61	241	1279	15.98	262	1288	16.33
259	34.88	194	1258	15.47	214	1267	15.80	237	1277	16.19	259	1286	16.54
258	34.29	192	1257	15.67	211	1265	16.00	234	1275	16.40	255	1284	16.75
257	33.71	189	1255	15.87	208	1263	16.23	231	1273	16.60	252	1282	16.96
256	33.14	186	1253	16.08	205	1262	16.45	228	1272	16.81	249	1280	17.19
255	32.57	183	1252	16.30	202	1260	16.67	225	1270	17.03	245	1278	17.40
254	32.01	180	1250	16.50	199	1258	16.89	221	1268	17.26	242	1277	17.64
253	31.46	177	1248	16.71	196	1256	17.10	218	1266	17.49	239	1275	17.87
252	30.92	174	1246	16.94	193	1255	17.32	215	1264	17.71	235	1273	18.10
251	30.38	171	1245	17.16	190	1253	17.55	212	1263	17.95	232	1271	18.35
250	29.86	168	1243	17.38	187	1251	17.78	209	1261	18.19	229	1269	18.60
249	29.34	165	1241	17.60	184	1250	18.02	205	1259	18.42	226	1268	18.84
248	28.82	162	1239	17.85	181	1248	18.25	202	1257	18.68	222	1266	19.09
247	28.32	159	1238	18.09	178	1246	18.50	199	1255	18.92	219	1264	19.34
246	27.82	156	1236	18.32	175	1244	18.75	196	1254	19.19	216	1262	19.60
245	27.33	153	1234	18.56	172	1243	19.00	193	1252	19.44	212	1260	19.85
244	26.85	151	1233	18.81	169	1241	19.25	190	1250	19.70	209	1259	20.11
243	26.37	148	1231	19.08	166	1240	19.50	187	1249	19.95	206	1257	20.39
242	25.90	145	1230	19.31	163	1238	19.77	184	1247	20.21	202	1255	20.65
241	25.44	142	1228	19.59	160	1236	20.02	181	1245	20.50	199	1253	20.93
240	24.98	139	1226	19.85	158	1235	20.30	177	1243	20.77	196	1251	21.20
239	24.53	136	1224	20.11	155	1233	20.58	174	1241	21.05	192	1249	21.50
238	24.09	133	1223	20.40	152	1231	20.85	171	1240	21.34	189	1247	21.80
237	23.66	131	1221	20.66	149	1230	21.15	168	1238	21.63	186	1246	22.10

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
228	20.02	45	1176	21.50	59	1183	21.95	74	1190	22.44	90	1198	22.90
227	19.64	43	1174	21.80	57	1181	22.29	72	1189	22.76	87	1196	23.24
226	19.28	41	1173	22.13	55	1180	22.60	69	1187	23.09	85	1195	23.58
225	18.91	38	1171	22.47	52	1178	22.93	67	1186	23.41	82	1193	23.90
224	18.56	36	1170	22.80	50	1177	23.27	65	1185	23.75	80	1192	24.25
223	18.21	34	1168	23.14	48	1176	23.60	62	1183	24.10	77	1190	24.60
222	17.86	32	1167	23.50	45	1174	23.95	60	1182	24.45	75	1189	24.95
221	17.52	30	1166	23.84	43	1172	24.31	57	1180	24.80	72	1187	25.31
220	17.19	27	1164	24.20	41	1171	24.67	55	1178	25.18	69	1185	25.69
219	16.86	25	1163	24.55	39	1170	25.05	52	1176	25.55	67	1184	26.05
218	16.53	23	1161	24.93	36	1168	25.41	50	1175	25.92	64	1182	26.44
217	16.21	21	1160	25.30	34	1166	25.80	48	1174	26.30	62	1181	26.84
216	15.90	19	1158	25.68	32	1165	26.20	45	1172	26.70	59	1179	27.25
215	15.59	17	1157	26.05	30	1164	26.60	43	1171	27.10	57	1178	27.67
214	15.29	15	1156	26.45	28	1163	27.00	41	1169	27.50	54	1176	28.10
213	14.99	12	1154	26.85	25	1160	27.40	38	1167	27.90	52	1174	28.52
212	14.70	10	1152	27.29	23	1159	27.85	36	1166	28.35	50	1173	28.95
211	14.41	8	1151	27.70	21	1158	28.30	34	1165	28.79	47	1171	29.40
210	14.12	6	1150	28.14	19	1156	28.71	32	1163	29.23	45	1170	29.85
209	13.84	4	1149	28.60	17	1155	29.17	29	1161	29.70	42	1168	30.30
208	13.57	2	1147	29.05	15	1154	29.63	27	1160	30.20	40	1167	30.78
207	13.29	9999	1145.1	29.26	12	1152	30.10	25	1159	30.70	38	1166	31.25
206	13.03	9987	1143.6	29.79	10	1150	30.55	22	1157	31.05	35	1164	31.72
205	12.77	9975	1142.1	30.33	8	1149	31.05	20	1155	31.60	33	1162	32.20
204	12.51	9963	1140.6	30.88	6	1147	31.50	18	1154	32.10	31	1161	32.70
203	12.25	9951	1139.2	31.44	4	1146	32.00	16	1153	32.60	28	1159	33.20
202	12.01	9940	1137.8	32.01	2	1145	32.55	14	1151	33.15	26	1158	33.75
201	11.76	9929	1136.3	32.61	9997	1142.9	32.83	11	1149	33.70	24	1156	34.30
200	11.52	9917	1134.8	33.20	9985	1141.4	33.43	9	1148	34.20	22	1155	34.85
199	11.28	9905	1133.4	33.82	9973	1139.9	34.05	7	1146	34.75	19	1153	35.40
198	11.05	9894	1131.9	34.44	9961	1138.5	34.67	5	1145	35.30	17	1152	36.00
197	10.82	9881	1130.4	35.08	9948	1136.9	35.32	3	1144	35.90	15	1150	36.60
196	10.60	9869	1128.9	35.73	9936	1135.4	35.98	0	1142	36.50	13	1148	37.20
195	10.38	9857	1127.4	36.41	9924	1134.0	36.66	9991	1140.5	36.91	10	1147	37.80
194	10.16	9845	1125.9	37.10	9912	1132.5	37.35	9979	1139.0	37.60	8	1145	38.40
193	9.95	9834	1124.5	37.80	9900	1131.0	38.06	9967	1137.6	38.31	6	1144	39.05
192	9.74	9822	1123.0	38.52	9888	1129.5	38.78	9955	1136.0	39.04	4	1143	39.70
191	9.53	9810	1121.5	39.25	9876	1128.0	39.51	9942	1134.5	39.78	1	1141	40.30
190	9.33	9798	1120.1	40.00	9864	1126.6	40.27	9930	1133.1	40.55	9997	1139.6	40.82
189	9.13	9787	1118.6	40.77	9853	1125.1	41.05	9919	1131.6	41.32	9985	1138.1	41.60
188	8.94	9774	1117.1	41.55	9840	1123.6	41.83	9906	1130.1	42.11	9972	1136.5	42.39
187	8.75	9763	1115.7	42.35	9829	1122.1	42.64	9894	1128.6	42.92	9960	1135.1	43.21
186	8.56	9751	1114.2	43.18	9816	1120.6	43.47	9882	1127.1	43.76	9947	1133.5	44.05
185	8.37	9739	1112.7	44.02	9805	1119.1	44.32	9870	1125.6	44.61	9935	1132.0	44.91
184	8.19	9727	1111.2	44.89	9792	1117.6	45.19	9857	1124.0	45.49	9923	1130.5	45.79

Pressure, Pounds per Square Inch.	1.80 Quality.	1.80 Heat Contents.	1.80 Specific Volume.	1.81 Quality.	1.81 Heat Contents.	1.81 Specific Volume.	1.82 Quality.	1.82 Heat Contents.	1.82 Specific Volume.	1.83 Quality.	1.83 Heat Contents.	1.83 Specific Volume.
20.02	106	1206	23.40	123	1214	23.94	141	1222	24.48	158	1230	25.00
19.64	104	1205	23.74	120	1212	24.27	138	1221	24.80	155	1228	25.38
19.28	101	1203	24.09	118	1211	24.61	135	1219	25.15	152	1227	25.74
18.91	98	1201	24.43	115	1209	24.97	132	1217	25.50	149	1225	26.10
18.56	96	1200	24.80	112	1208	25.34	129	1216	25.88	146	1223	26.49
18.21	93	1198	25.15	109	1206	25.72	127	1214	26.25	143	1222	26.85
17.86	90	1196	25.51	107	1205	26.10	124	1213	26.64	140	1220	27.25
17.52	88	1195	25.88	104	1203	26.47	121	1211	27.04	137	1218	27.65
17.19	85	1193	26.26	101	1200	26.86	118	1209	27.44	134	1216	28.05
16.86	83	1192	26.65	98	1199	27.25	115	1207	27.85	131	1215	28.45
16.53	80	1190	27.05	96	1198	27.67	112	1205	28.27	128	1213	28.88
16.21	78	1189	27.45	93	1196	28.09	110	1204	28.69	126	1212	29.30
15.90	75	1187	27.85	90	1194	28.50	107	1202	29.10	123	1210	29.74
15.59	72	1185	28.29	88	1193	28.91	104	1201	29.53	120	1208	30.19
15.29	70	1184	28.70	85	1191	29.35	101	1199	29.97	117	1206	30.64
14.99	67	1182	29.14	82	1189	29.80	98	1197	30.44	114	1205	31.10
14.70	65	1181	29.58	80	1188	30.24	96	1196	30.90	111	1203	31.55
14.41	62	1179	30.02	77	1186	30.70	93	1194	31.35	109	1202	32.05
14.12	60	1178	30.48	74	1184	31.15	90	1192	31.85	106	1200	32.55
13.84	57	1176	30.95	72	1183	31.65	87	1190	32.35	103	1198	33.05
13.57	55	1175	31.40	69	1181	32.10	85	1189	32.85	100	1197	33.55
13.29	52	1173	31.90	66	1179	32.60	82	1187	33.35	97	1195	34.05
13.03	50	1171	32.40	64	1178	33.10	79	1186	33.90	94	1193	34.60
12.77	47	1169	32.90	61	1176	33.60	77	1184	34.40	91	1191	35.10
12.51	45	1168	33.40	59	1175	34.10	74	1182	34.90	89	1190	35.60
12.25	43	1167	33.95	56	1173	34.65	71	1181	35.45	86	1188	36.15
12.01	40	1166	34.50	54	1172	35.20	69	1179	36.00	83	1187	36.70
11.76	38	1165	35.05	51	1170	35.75	66	1178	36.55	80	1185	37.30
11.52	35	1162	35.60	49	1169	36.32	64	1176	37.10	78	1183	37.85
11.28	33	1160	36.15	46	1167	36.90	61	1174	37.65	75	1182	38.45
11.05	30	1158	36.75	44	1166	37.49	58	1173	38.25	72	1180	39.05
10.82	28	1157	37.35	41	1164	38.05	56	1171	38.90	69	1178	39.65
10.60	26	1156	37.95	39	1162	38.64	53	1169	39.50	67	1177	40.30
10.38	23	1154	38.57	36	1160	39.25	50	1168	40.14	64	1175	40.90
10.16	21	1153	39.20	34	1159	39.90	48	1166	40.77	61	1173	41.60
9.95	19	1151	39.85	31	1157	40.55	45	1164	41.47	59	1172	42.30
9.74	16	1149	40.50	29	1156	41.23	43	1163	42.08	56	1170	43.00
9.53	14	1148	41.15	26	1154	41.90	40	1161	42.80	54	1169	43.70
9.33	12	1147	41.82	24	1153	42.62	38	1160	43.54	51	1167	44.40
9.13	9	1145	42.48	22	1151	43.35	35	1158	44.25	48	1166	45.20
8.94	7	1143	43.20	19	1149	44.05	33	1157	45.00	46	1164	45.95
8.75	5	1142	43.90	17	1148	44.80	30	1155	45.75	43	1162	46.70
8.56	2	1140	44.65	14	1146	45.50	28	1154	46.50	41	1161	47.50
8.37	0	1138	45.35	12	1145	46.25	25	1152	47.25	38	1159	48.30
8.19	9988	1136.9	46.09	10	1143	47.05	23	1150	48.05	36	1157	49.10
8.01	9976	1135.4	47.00	7	1141	47.85	20	1148	48.90	33	1155	49.90

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.76			[illegible]			[illegible]			[illegible]		
		Quality.	Heat Contents.	Specific Volume	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	9680	1105.1	48.53	9744	1111.5	48.86	9809	1117.9	49.18	9874	1124.3	49.51
179	7.34	9668	1103.7	49.49	9733	1110.0	49.82	9797	1116.4	50.15	9862	1122.8	50.48
178	7.17	9656	1102.2	50.47	9721	1108.6	50.81	9785	1114.9	51.15	9850	1121.3	51.48
177	7.01	9645	1100.7	51.49	9709	1107.1	51.84	9773	1113.4	52.18	9838	1119.8	52.52
176	6.86	9632	1099.2	52.54	9697	1105.5	52.89	9761	1111.9	53.23	9825	1118.2	53.58
175	6.70	9621	1097.7	53.59	9685	1104.0	53.94	9749	1110.4	54.30	9813	1116.7	54.66
174	6.55	9609	1096.2	54.68	9673	1102.5	55.04	9737	1108.8	55.40	9800	1115.2	55.76
173	6.41	9597	1094.7	55.79	9661	1101.0	56.16	9725	1107.3	56.53	9788	1113.7	56.90
172	6.26	9586	1093.2	56.93	9649	1099.5	57.31	9713	1105.8	57.68	9776	1112.1	58.06
171	6.12	9573	1091.6	58.08	9636	1097.9	58.46	9700	1104.2	58.85	9763	1110.5	59.23
170	5.98	9561	1090.1	59.28	9625	1096.4	59.67	9688	1102.7	60.06	9751	1109.0	60.46
169	5.84	9550	1088.6	60.52	9613	1094.9	60.91	9676	1101.2	61.31	9739	1107.5	61.71
168	5.71	9538	1087.1	61.78	9601	1093.4	62.18	9664	1099.7	62.59	9727	1105.9	63.00
167	5.58	9426	1085.6	63.07	9589	1091.9	63.49	9652	1098.1	63.90	9715	1104.4	64.32
166	5.45	9514	1084.1	64.38	9577	1090.3	64.81	9640	1096.6	65.23	9702	1102.8	65.65
165	5.32	9502	1082.6	65.73	9565	1088.8	66.16	9627	1095.0	66.59	9690	1101.3	67.02
164	5.20	9490	1081.0	67.12	9553	1087.3	67.56	9615	1093.5	68.00	9677	1099.7	68.44
163	5.08	9478	1079.5	68.53	9541	1085.7	68.98	9603	1092.0	69.43	9665	1098.2	69.88
162	4.960	9466	1078.0	69.99	9529	1084.2	70.44	9591	1090.4	70.90	9653	1096.6	71.36
161	4.844	9456	1076.5	71.49	9518	1082.7	71.96	9580	1088.9	72.42	9642	1095.1	72.89
160	4.729	9444	1075.0	73.01	9506	1081.2	73.49	9568	1087.4	73.97	9630	1093.6	74.45
159	4.617	9432	1073.4	74.58	9494	1079.6	75.07	9555	1085.8	75.56	9617	1092.0	76.04
158	4.508	9420	1071.9	76.19	9482	1078.1	76.69	9543	1084.2	77.19	9605	1090.4	77.68
157	4.400	9409	1070.4	77.85	9470	1076.6	78.36	9532	1082.7	78.86	9593	1088.9	79.37
156	4.295	9397	1068.9	79.55	9458	1075.0	80.07	9519	1081.2	80.59	9580	1087.3	81.11
155	4.191	9385	1067.3	81.28	9446	1073.4	81.81	9507	1079.6	82.34	9568	1085.7	82.87
154	4.090	9373	1065.7	83.06	9434	1071.9	83.60	9495	1078.0	84.14	9556	1084.2	84.68
153	3.991	9361	1064.2	84.89	9422	1070.4	85.44	9483	1076.5	85.99	9544	1082.6	86.54
152	3.894	9349	1062.7	86.77	9410	1068.8	87.33	9471	1074.9	87.90	9531	1081.0	88.46
151	3.799	9337	1061.1	88.69	9398	1067.2	89.27	9458	1073.3	89.84	9519	1079.4	90.42
150	3.706	9326	1059.6	90.68	9386	1065.7	91.27	9446	1071.8	91.86	9507	1077.9	92.44
149	3.615	9314	1058.0	92.71	9374	1064.1	93.31	9434	1070.2	93.91	9494	1076.3	94.51
148	3.526	9302	1056.5	94.79	9362	1062.6	95.40	9422	1068.7	96.01	9482	1074.8	96.62
147	3.439	9290	1055.0	96.89	9350	1061.0	97.52	9410	1067.1	98.14	9470	1073.1	98.77
146	3.353	9278	1053.4	99.09	9338	1059.5	99.73	9398	1065.5	100.4	9458	1071.6	101.0
145	3.270	9266	1051.8	101.4	9326	1057.9	102.0	9385	1063.9	102.7	9445	1070.0	103.3
144	3.188	9255	1050.3	103.7	9314	1056.4	104.3	9374	1062.4	105.0	9433	1068.4	105.7
143	3.108	9242	1048.7	106.0	9302	1054.8	106.7	9361	1060.8	107.4	9421	1066.8	108.1
142	3.029	9231	1047.2	108.5	9290	1053.2	109.2	9349	1059.2	109.9	9408	1065.2	110.5
141	2.953	9220	1045.7	111.0	9279	1051.7	111.7	9338	1057.7	112.4	9397	1063.7	113.1
140	2.877	9208	1044.1	113.6	9267	1050.1	114.4	9326	1056.0	115.1	9385	1062.0	115.8
139	2.804	9196	1042.5	116.3	9255	1048.5	117.1	9314	1054.5	117.8	9373	1060.5	118.6
138	2.732	9184	1041.0	119.0	9243	1047.0	119.8	9302	1053.0	120.6	9360	1058.9	121.3
137	2.662	9172	1039.4	121.8	9231	1045.3	122.6	9289	1051.3	123.4	9348	1057.3	124.1
136	2.593	9160	1037.8	124.7	9219	1043.8	125.5	9277	1049.7	126.3	9336	1055.7	127.1
135	2.526	9149	1036.2	127.7	9207	1042.2	128.4	9265	1048.1	129.2	9323	1054.1	130.1
134	2.460	9136	1034.6	130.7	9194	1040.6	131.5	9253	1046.5	132.4	9311	1052.4	[illegible]

Temperature, Degrees Fa	Pressure, Pou per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
180	7.50	9939	1130.7	49.83	0	1137	50.33	13	1144	51.35	25	1150	52.40
179	7.34	9926	1129.2	50.81	9991	1135.6	51.14	10	1142	52.20	23	1149	53.30
178	7.17	9914	1127.7	51.82	9978	1134.1	52.16	8	1140	53.20	20	1147	54.30
177	7.01	9902	1126.2	52.87	9966	1132.5	53.21	5	1139	54.20	18	1146	55.20
176	6.86	9889	1124.6	53.93	9953	1130.9	54.28	3	1137	55.19	15	1144	56.10
175	6.70	9877	1123.0	55.01	9940	1129.4	55.37	0	1136	56.10	13	1142	57.10
174	6.55	9864	1121.5	56.13	9928	1127.9	56.49	9992	1134.2	56.85	10	1140	58.10
173	6.41	9852	1120.0	57.27	9916	1126.3	57.64	9979	1132.6	58.01	8	1139	59.20
172	6.26	9840	1118.4	58.44	9903	1124.8	58.81	9967	1131.1	59.19	6	1138	60.20
171	6.12	9827	1116.8	59.62	9890	1123.1	60.00	9953	1129.5	60.39	3	1136	61.30
170	5.98	9814	1115.3	60.85	9877	1121.6	61.24	9941	1127.9	61.63	1	1134	62.40
169	5.84	9802	1113.8	62.11	9865	1120.0	62.51	9928	1126.3	62.91	9991	1132.6	63.31
168	5.71	9789	1112.2	63.41	9852	1118.5	63.81	9915	1124.8	64.22	9978	1131.0	64.63
167	5.58	9777	1110.6	64.73	9840	1116.9	65.15	9902	1123.2	65.56	9966	1129.4	65.98
166	5.45	9765	1109.1	66.08	9827	1115.3	66.50	9890	1121.6	66.92	9953	1127.9	67.35
165	5.32	9752	1107.5	67.46	9815	1113.8	67.89	9877	1120.0	68.32	9940	1126.3	68.75
164	5.20	9740	1106.0	68.88	9802	1112.2	69.32	9864	1118.4	69.76	9927	1124.7	70.20
163	5.08	9727	1104.4	70.33	9789	1110.6	70.78	9852	1116.9	71.23	9914	1123.1	71.68
162	4.960	9715	1102.8	71.82	9777	1109.0	72.28	9839	1115.3	72.74	9901	1121.5	73.20
161	4.844	9704	1101.3	73.36	9766	1107.5	73.83	9828	1113.7	74.30	9890	1119.9	74.77
160	4.729	9691	1099.7	74.92	9753	1105.9	75.40	9815	1112.1	75.88	9877	1118.3	76.36
159	4.617	9679	1098.2	76.53	9740	1104.4	77.02	9802	1110.5	77.50	9864	1116.7	77.99
158	4.508	9666	1096.6	78.18	9728	1102.8	78.68	9789	1108.9	79.18	9851	1115.1	79.67
157	4.400	9654	1095.1	79.88	9716	1101.2	80.39	9777	1107.4	80.89	9838	1113.6	81.40
156	4.295	9642	1093.5	81.63	9703	1099.6	82.14	9764	1105.8	82.66	9825	1111.9	83.18
155	4.191	9629	1091.9	83.40	9690	1098.0	83.93	9751	1104.2	84.46	9812	1110.3	84.98
154	4.090	9617	1090.3	85.22	9677	1096.4	85.76	9738	1102.6	86.30	9799	1108.7	86.84
153	3.991	9605	1088.7	87.09	9665	1094.9	87.64	9726	1101.0	88.20	9787	1107.1	88.75
152	3.894	9592	1087.1	89.02	9653	1093.3	89.58	9713	1099.4	90.15	9774	1105.5	90.71
151	3.799	9579	1085.5	90.99	9640	1091.6	91.57	9700	1097.8	92.14	9761	1103.9	92.72
150	3.706	9567	1084.0	93.03	9628	1090.1	93.62	9688	1096.2	94.20	9748	1102.3	94.79
149	3.615	9554	1082.4	95.11	9615	1088.5	95.70	9675	1094.6	96.30	9735	1100.6	96.90
148	3.526	9542	1080.8	97.24	9602	1086.9	97.85	9663	1093.0	98.46	9723	1099.1	99.07
147	3.439	9530	1079.2	99.39	9590	1085.3	100.0	9650	1091.3	100.6	9710	1097.4	101.3
146	3.353	9518	1077.7	101.6	9577	1083.7	102.3	9637	1089.8	102.9	9697	1095.8	103.6
145	3.270	9505	1076.0	104.0	9564	1082.1	104.6	9624	1088.1	105.3	9684	1094.2	105.9
144	3.188	9493	1074.5	106.3	9552	1080.5	107.0	9612	1086.5	107.7	9671	1092.6	108.3
143	3.108	9480	1072.8	108.7	9539	1078.9	109.4	9599	1084.9	110.1	9658	1090.9	110.8
142	3.029	9468	1071.3	111.2	9527	1077.3	111.9	9586	1083.3	112.6	9645	1089.3	113.3
141	2.953	9456	1069.7	113.9	9516	1075.7	114.6	9575	1081.7	115.3	9634	1087.7	116.0
140	2.877	9444	1068.0	116.5	9503	1074.0	117.3	9562	1080.0	118.0	9621	1086.0	118.7
139	2.804	9431	1066.5	119.3	9490	1072.4	120.1	9549	1078.4	120.8	9608	1084.4	121.5
138	2.732	9419	1064.9	122.1	9478	1070.8	122.8	9537	1076.8	123.6	9595	1082.8	124.4
137	2.662	9406	1063.2	124.9	9465	1069.2	125.7	9523	1075.1	126.5	9582	1081.1	127.2
136	2.593	9394	1061.6	127.9	9452	1067.6	128.6	9511	1073.5	129.4	9569	1079.5	130.2
135	2.526	9382	1060.0	130.9	9440	1066.0	131.7	9498	1071.9	132.5	9557	1077.9	133.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9427	1064.3	134.9	9485	1070.2	135.7	9543	1076.2	136.5

Temperature, Degrees Fa	Pressure, Pou per Square Inch.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
132	2.333	9113	1031.5	137.1	9170	1037.4	137.9	9228	1043.3	138.8	9286	1049.2	139.7
131	2.272	9101	1029.9	140.3	9159	1035.8	141.2	9216	1041.7	142.1	9274	1047.6	143.0
130	2.212	9089	1028.3	143.7	9147	1034.2	144.6	9204	1040.1	145.5	9262	1046.0	146.4
129	2.153	9077	1026.8	147.3	9135	1032.7	148.3	9192	1038.5	149.2	9250	1044.4	150.1
128	2.096	9065	1025.2	150.8	9123	1031.1	151.8	9180	1036.9	152.8	9237	1042.8	153.7
127	2.040	9053	1023.6	154.5	9111	1029.5	155.5	9168	1035.3	156.5	9225	1041.2	157.5
126	1.985	9041	1022.0	158.4	9099	1027.9	159.4	9156	1033.7	160.4	9213	1039.6	161.4
125	1.932	9030	1020.5	162.4	9086	1026.3	163.4	9143	1032.2	164.4	9200	1038.0	165.4
124	1.880	9018	1018.8	166.4	9074	1024.7	167.4	9131	1030.5	168.5	9188	1036.3	169.5
123	1.829	9006	1017.3	170.5	9062	1023.1	171.5	9119	1029.0	172.6	9176	1034.8	173.7
122	1.779	8994	1015.6	174.7	9050	1021.4	175.8	9107	1027.3	176.9	9163	1033.1	178.0
121	1.730	8983	1014.0	179.2	9040	1019.9	180.3	9096	1025.7	181.5	9152	1031.5	182.6
120	1.683	8971	1012.5	183.7	9027	1018.3	184.9	9084	1024.1	186.0	9140	1029.9	187.2
119	1.636	8959	1010.9	188.4	9015	1016.7	189.6	9071	1022.5	190.8	9127	1028.3	191.9
118	1.591	8948	1009.3	193.3	9004	1015.1	194.5	9060	1020.9	195.7	9116	1026.6	196.9
117	1.547	8936	1007.7	198.2	8991	1013.5	199.4	9047	1019.2	200.7	9103	1025.0	201.9
116	1.504	8923	1006.1	203.3	8979	1011.8	204.5	9035	1017.5	205.8	9090	1023.3	207.1
115	1.462	8912	1004.5	208.5	8968	1010.2	209.8	9023	1015.9	211.1	9079	1021.7	212.4
114	1.421	8900	1002.9	214.0	8955	1008.6	215.3	9011	1014.3	216.6	9066	1020.1	218.0
113	1.381	8888	1001.3	219.5	8943	1007.0	220.9	8998	1012.7	222.3	9054	1018.4	223.6
112	1.342	8876	999.7	225.3	8931	1005.4	226.7	8986	1011.1	228.1	9042	1016.8	229.5
111	1.304	8864	998.1	231.3	8919	1003.8	232.7	8970	1009.5	234.1	9029	1015.2	235.9
110	1.266	8852	996.4	237.3	8907	1002.1	238.8	8962	1007.8	240.3	9017	1013.5	241.7
109	1.230	8840	994.8	243.6	8895	1000.5	245.1	8950	1006.2	246.7	9004	1011.9	248.2
108	1.195	8829	993.2	250.1	8883	998.9	251.7	8938	1004.5	253.2	8992	1010.2	254.8
107	1.160	8816	991.6	256.7	8871	997.3	258.3	8925	1002.9	259.9	8980	1008.6	261.5
106	1.127	8805	989.9	263.6	8859	995.6	265.2	8913	1001.2	266.9	8968	1006.9	268.5
105	1.094	8793	988.3	270.8	8847	993.0	272.5	8901	999.6	274.2	8956	1005.3	275.8
104	1.062	8781	986.7	278.2	8835	992.3	279.9	8889	997.9	281.6	8943	1003.6	283.3
103	1.031	8769	985.1	285.8	8823	990.7	287.5	8877	996.3	289.3	8931	1002.0	291.1
102	1.000	8757	983.4	293.5	8811	989.1	295.3	8865	994.7	297.1	8919	1000.3	298.9
101	0.971	8746	981.8	301.6	8800	987.4	303.4	8854	993.0	305.3	8907	998.6	307.1
100	0.942	8734	980.2	309.8	8787	985.7	311.7	8841	991.3	313.6	8894	996.9	315.5
99	0.914	8722	978.6	318.5	8775	984.1	320.5	8829	989.7	322.4	8882	995.3	324.4
98	0.887	8710	976.9	327.4	8763	982.5	329.4	8817	988.0	331.4	8870	993.6	333.4
97	0.860	8698	975.3	336.5	8751	980.9	338.6	8805	986.4	340.6	8858	992.0	342.7
96	0.834	8687	973.7	346.1	8740	979.3	348.2	8793	984.8	350.3	8846	990.4	352.4
95	0.809	8675	972.1	355.9	8728	977.7	358.0	8781	983.2	360.2	8834	988.8	362.4
94	0.784	8663	970.4	365.9	8716	976.0	368.2	8769	981.5	370.4	8822	987.1	372.6
93	0.761	8651	968.8	376.3	8704	974.4	378.6	8757	979.9	380.9	8809	985.4	383.2
92	0.737	8639	967.2	387.1	8692	972.7	389.5	8744	978.2	391.8	8797	983.7	394.2
91	0.715	8627	965.5	398.3	8680	971.0	400.7	8732	976.5	403.2	8785	982.0	405.6
90	0.693	8615	963.8	409.7	8668	969.3	412.2	8720	974.8	414.7	8772	980.3	417.2
89	0.671	8603	962.2	421.6	8656	967.7	424.1	8708	973.2	426.7	8760	978.6	429.2
88	0.650	8591	960.5	433.7	8643	966.0	436.3	8695	971.5	438.9	8747	976.9	441.6
87	0.630	8580	958.9	446.5	8632	964.4	449.2	8684	969.8	451.9	8736	975.3	454.6

Temperature, Degrees Fahr	Pressure, Pounds per Square Inch.	1.80			1.81			1.82			1.83		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific
132	2.333	9344	1055.2	140.5	9402	1061.1	141.4	9460	1067.0	142.3	9518	1072.9	14
131	2.272	9332	1053.5	143.9	9389	1059.4	144.8	9447	1065.4	145.7	9505	1071.3	14
130	2.212	9319	1051.9	147.3	9377	1057.8	148.2	9435	1063.7	149.2	9492	1069.6	15
129	2.153	9307	1050.3	151.1	9364	1056.2	152.0	9422	1062.1	152.9	9479	1068.0	15
128	2.096	9295	1048.7	154.7	9352	1054.6	155.6	9409	1060.4	156.6	9466	1066.3	15
127	2.040	9282	1047.1	158.4	9339	1053.0	159.4	9396	1058.8	160.4	9454	1064.7	16
126	1.985	9270	1045.4	162.4	9327	1051.3	163.4	9384	1057.1	164.4	9441	1063.0	16
125	1.932	9257	1043.8	166.4	9314	1049.7	167.5	9371	1055.5	168.5	9428	1061.4	16
124	1.880	9245	1042.2	170.6	9301	1048.0	171.6	9358	1053.8	172.7	9415	1059.7	17
123	1.829	9232	1040.6	174.8	9289	1046.4	175.8	9345	1052.2	176.9	9402	1058.1	17
122	1.779	9220	1038.9	179.1	9276	1044.7	180.2	9333	1050.5	181.3	9389	1056.3	18
121	1.730	9209	1037.3	183.7	9265	1043.1	184.8	9321	1048.9	186.0	9378	1054.7	18
120	1.683	9196	1035.7	188.3	9252	1041.5	189.5	9309	1047.2	190.6	9365	1053.0	191
119	1.636	9184	1034.1	193.1	9240	1039.9	194.3	9296	1045.6	195.5	9352	1051.4	196
118	1.591	9171	1032.4	198.1	9227	1038.2	199.3	9283	1044.0	200.5	9339	1049.7	201
117	1.547	9159	1030.8	203.1	9215	1036.5	204.4	9271	1042.3	205.6	9326	1048.0	206
116	1.504	9146	1029.1	208.3	9202	1034.8	209.6	9257	1040.6	210.9	9313	1046.3	212
115	1.462	9134	1027.5	213.7	9190	1033.2	215.0	9245	1039.0	216.3	9301	1044.7	217
114	1.421	9122	1025.8	219.3	9177	1031.5	220.6	9232	1037.3	221.9	9288	1043.0	223
113	1.381	9109	1024.2	225.0	9164	1029.9	226.4	9219	1035.6	227.7	9275	1040.4	229
112	1.342	9097	1022.5	230.9	9152	1028.2	232.2	9207	1033.9	233.7	9262	1039.7	235
111	1.304	9084	1020.9	237.0	9139	1026.6	238.4	9194	1032.3	239.9	9249	1038.0	241
110	1.266	9072	1019.2	243.2	9127	1024.9	244.7	9182	1030.6	246.2	9237	1036.3	247
109	1.230	9059	1017.6	249.7	9114	1023.3	251.2	9169	1028.9	252.7	9223	1034.7	254
108	1.195	9047	1015.9	256.3	9102	1021.6	257.8	9156	1027.2	259.4	9211	1032.9	260
107	1.160	9034	1014.3	263.1	9089	1019.9	264.7	9143	1025.6	266.3	9198	1031.2	267
106	1.127	9022	1012.6	270.1	9076	1018.2	271.7	9131	1023.9	273.4	9185	1029.5	275
105	1.094	9010	1010.9	277.5	9064	1016.5	279.2	9118	1022.2	280.8	9172	1027.8	282
104	1.062	8997	1009.2	285.0	9051	1014.8	286.7	9105	1020.5	288.5	9159	1026.1	290
103	1.031	8985	1007.6	292.8	9039	1013.2	294.6	9093	1018.8	296.3	9147	1024.5	298
102	1.000	8972	1005.9	300.8	9026	1011.5	302.6	9080	1017.1	304.4	9134	1022.8	306
101	0.971	8961	1004.2	309.0	9015	1009.8	310.8	9068	1015.4	312.7	9122	1021.1	314
100	0.942	8948	1002.5	317.4	9002	1008.1	319.3	9055	1013.7	321.2	9109	1019.3	323
99	0.914	8936	1001.9	326.3	8989	1006.5	328.3	9043	1012.0	330.2	9096	1017.6	332
98	0.887	8923	999.2	335.4	8977	1004.8	337.4	9030	1010.3	339.4	9083	1015.9	341
97	0.860	8911	997.6	344.8	8964	1003.2	346.8	9017	1008.7	348.9	9070	1013.3	350.
96	0.834	8899	996.0	354.5	8952	1001.5	356.7	9005	1007.1	358.8	9059	1012.6	360.
95	0.809	8887	994.3	364.5	8940	999.8	366.7	8993	1005.4	368.9	9046	1010.9	371.
94	0.784	8874	992.6	374.9	8927	998.1	377.1	8980	1003.7	389.3	9033	1009.2	381.
93	0.761	8862	990.9	385.5	8915	996.4	387.8	8967	1001.9	390.1	9020	1007.5	392.
92	0.737	8850	989.2	396.5	8902	994.7	398.9	8955	1000.2	401.3	9007	1005.8	403.
91	0.715	8837	987.5	408.0	8889	993.0	410.4	8942	998.5	412.8	8994	1004.1	415.
90	0.693	8825	985.8	419.7	8877	991.3	422.2	8929	996.8	424.7	8981	1002.3	427.
89	0.671	8812	984.1	431.8	8864	989.6	434.3	8916	995.1	436.9	8968	1000.6	439.
88	0.650	8799	982.4	444.2	8851	987.9	446.8	8903	993.4	449.4	8955	998.8	452.
87	0.630	8787	980.7	457.3	8839	986.2	460.0	8891	991.7	462.7	8943	997.1	465
86	0.610	8775	979.0	470.7	8827	984.5	473.5	8878	990.0	476.2	8930	995.4	479

	0	1	2	3	4	5	6	7	8	9
1.0	0.0000	0.00995	0.01980	0.02956	0.03922	0.04879	0.05827	0.06766	0.07696	0.08618
1.1	0.09531	0.1044	0.1133	0.1222	0.1310	0.1398	0.1484	0.1570	0.1655	0.1739
1.2	0.1823	0.1906	0.1988	0.2070	0.2151	0.2231	0.2311	0.2390	0.2469	0.2546
1.3	0.2624	0.2700	0.2776	0.2852	0.2927	0.3001	0.3075	0.3148	0.3221	0.3293
1.4	0.3365	0.3436	0.3507	0.3577	0.3646	0.3716	0.3784	0.3853	0.3920	0.3988
1.5	0.4055	0.4121	0.4187	0.4253	0.4318	0.4382	0.4447	0.4511	0.4574	0.4637
1.6	0.4700	0.4762	0.4824	0.4886	0.4947	0.5008	0.5068	0.5128	0.5188	0.5247
1.7	0.5306	0.5365	0.5423	0.5481	0.5539	0.5596	0.5653	0.5710	0.5766	0.5822
1.8	0.5878	0.5933	0.5988	0.6043	0.6098	0.6152	0.6206	0.6259	0.6313	0.6366
1.9	0.6418	0.6471	0.6523	0.6575	0.6627	0.6678	0.6729	0.6780	0.6831	0.6881
2.0	0.6931	0.6981	0.7031	0.7080	0.7129	0.7178	0.7227	0.7275	0.7324	0.7372
2.1	0.7419	0.7467	0.7514	0.7561	0.7608	0.7655	0.7701	0.7747	0.7793	0.7839
2.2	0.7884	0.7930	0.7975	0.8020	0.8065	0.8109	0.8154	0.8198	0.8242	0.8286
2.3	0.8329	0.8372	0.8416	0.8459	0.8502	0.8544	0.8587	0.8629	0.8671	0.8713
2.4	0.8755	0.8796	0.8838	0.8879	0.8920	0.8961	0.9002	0.9042	0.9083	0.9123
2.5	0.9163	0.9203	0.9243	0.9282	0.9322	0.9361	0.9400	0.9439	0.9478	0.9517
2.6	0.9555	0.9594	0.9632	0.9670	0.9708	0.9746	0.9783	0.9821	0.9858	0.9895
2.7	0.9933	0.9969	1.0006	1.0043	1.0080	1.0116	1.0152	1.0188	1.0225	1.0260
2.8	1.0296	1.0332	1.0367	1.0403	1.0438	1.0473	1.0508	1.0543	1.0578	1.0613
2.9	1.0647	1.0682	1.0716	1.0750	1.0784	1.0818	1.0852	1.0886	1.0919	1.0953
3.0	1.0986	1.1019	1.1053	1.1086	1.1119	1.1151	1.1184	1.1217	1.1249	1.1282
3.1	1.1314	1.1346	1.1378	1.1410	1.1442	1.1474	1.1506	1.1537	1.1569	1.1600
3.2	1.1632	1.1663	1.1694	1.1725	1.1756	1.1787	1.1817	1.1848	1.1878	1.1909
3.3	1.1939	1.1969	1.2000	1.2030	1.2060	1.2090	1.2119	1.2149	1.2179	1.2208
3.4	1.2238	1.2267	1.2296	1.2326	1.2355	1.2384	1.2413	1.2442	1.2470	1.2499
3.5	1.2528	1.2556	1.2585	1.2613	1.2641	1.2669	1.2698	1.2726	1.2754	1.2782
3.6	1.2809	1.2837	1.2865	1.2892	1.2920	1.2947	1.2975	1.3002	1.3029	1.3056
3.7	1.3083	1.3110	1.3137	1.3164	1.3191	1.3218	1.3244	1.3271	1.3297	1.3324
3.8	1.3350	1.3376	1.3403	1.3429	1.3455	1.3481	1.3507	1.3533	1.3558	1.3584
3.9	1.3610	1.3635	1.3661	1.3686	1.3712	1.3737	1.3762	1.3788	1.3813	1.3838
4.0	1.3863	1.3888	1.3913	1.3938	1.3962	1.3987	1.4012	1.4036	1.4061	1.4085
4.1	1.4110	1.4134	1.4159	1.4183	1.4207	1.4231	1.4255	1.4279	1.4303	1.4327
4.2	1.4351	1.4375	1.4398	1.4422	1.4446	1.4469	1.4493	1.4516	1.4540	1.4563
4.3	1.4586	1.4609	1.4633	1.4656	1.4679	1.4702	1.4725	1.4748	1.4770	1.4793
4.4	1.4816	1.4839	1.4861	1.4884	1.4907	1.4929	1.4951	1.4974	1.4996	1.5019
4.5	1.5041	1.5063	1.5085	1.5107	1.5129	1.5151	1.5173	1.5195	1.5217	1.5239
4.6	1.5261	1.5282	1.5304	1.5326	1.5347	1.5369	1.5390	1.5412	1.5433	1.5454
4.7	1.5476	1.5497	1.5518	1.5539	1.5560	1.5581	1.5602	1.5623	1.5644	1.5665
4.8	1.5686	1.5707	1.5728	1.5748	1.5769	1.5790	1.5810	1.5831	1.5851	1.5872
4.9	1.5892	1.5913	1.5933	1.5953	1.5974	1.5994	1.6014	1.6034	1.6054	1.6074
5.0	1.6094	1.6114	1.6134	1.6154	1.6174	1.6194	1.6214	1.6233	1.6253	1.6273
5.1	1.6292	1.6312	1.6332	1.6351	1.6371	1.6390	1.6409	1.6429	1.6448	1.6467
5.2	1.6487	1.6506	1.6525	1.6544	1.6563	1.6582	1.6601	1.6620	1.6639	1.6658
5.3	1.6677	1.6696	1.6715	1.6734	1.6752	1.6771	1.6790	1.6808	1.6827	1.6845
5.4	1.6864	1.6882	1.6901	1.6919	1.6938	1.6956	1.6974	1.6993	1.7011	1.7029
5.5	1.7047	1.7066	1.7884	1.7102	1.7120	1.7138	1.7156	1.7174	1.7192	1.7210
5.6	1.7228	1.7246	1.7263	1.7281	1.7299	1.7317	1.7334	1.7352	1.7370	1.7387

0	1	2	3	4	5	6	7	8	9
1.7405	1.7422	1.7440	1.7457	1.7475	1.7492	1.7509	1.7527	1.7544	1.7561
1.7579	1.7596	1.7613	1.7630	1.7647	1.7664	1.7681	1.7699	1.7716	1.7733
1.7750	1.7766	1.7783	1.7800	1.7817	1.7834	1.7851	1.7867	1.7884	1.7901
1.7918	1.7934	1.7951	1.7967	1.7984	1.8001	1.8017	1.8034	1.8050	1.8066
1.8083	1.8099	1.8116	1.8132	1.8148	1.8165	1.8181	1.8197	1.8213	1.8229
1.8245	1.8262	1.8278	1.8294	1.8310	1.8326	1.8342	1.8358	1.8374	1.8390
1.8405	1.8421	1.8437	1.8453	1.8469	1.8485	1.8500	1.8516	1.8532	1.8547
1.8563	1.8579	1.8594	1.8610	1.8625	1.8641	1.8656	1.8672	1.8687	1.8703
1.8718	1.8733	1.8749	1.8764	1.8779	1.8795	1.8810	1.8825	1.8840	1.8856
1.8871	1.8886	1.8901	1.8916	1.8931	1.8946	1.8961	1.8976	1.8991	1.9006
1.9021	1.9036	1.9051	1.9066	1.9081	1.9095	1.9110	1.9125	1.9140	1.9155
1.9169	1.9184	1.9199	1.9213	1.9228	1.9242	1.9257	1.9272	1.9286	1.9301
1.9315	1.9330	1.9344	1.9359	1.9373	1.9387	1.9402	1.9416	1.9430	1.9445
1.9459	1.9473	1.9488	1.9502	1.9516	1.9530	1.9544	1.9559	1.9573	1.9587
1.9601	1.9615	1.9629	1.9643	1.9657	1.9671	1.9685	1.9699	1.9713	1.9727
1.9741	1.9755	1.9769	1.9782	1.9796	1.9810	1.9824	1.9838	1.9851	1.9865
1.9879	1.9892	1.9906	1.9920	1.9933	1.9947	1.9961	1.9974	1.9988	2.0001
2.0015	2.0028	2.0042	2.0055	2.0069	2.0082	2.0096	2.0109	2.0122	2.0136
2.0149	2.0162	2.0176	2.0189	2.0202	2.0215	2.0229	2.0242	2.0255	2.0268
2.0281	2.0295	2.0308	2.0321	2.0334	2.0347	2.0360	2.0373	2.0386	2.0399
2.0412	2.0425	2.0438	2.0451	2.0464	2.0477	2.0490	2.0503	2.0516	2.0528
2.0541	2.0554	2.0567	2.0580	2.0592	2.0605	2.0618	2.0631	2.0643	2.0656
2.0668	2.0681	2.0694	2.0707	2.0719	2.0732	2.0744	2.0757	2.0769	2.0782
2.0794	2.0807	2.0819	2.0832	2.0844	2.0857	2.0869	2.0881	2.0894	2.0906
2.0919	2.0931	2.0943	2.0956	2.0968	2.0980	2.0992	2.1005	2.1017	2.1029
2.1041	2.1054	2.1066	2.1078	2.1090	2.1102	2.1114	2.1126	2.1138	2.1150
2.1163	2.1175	2.1187	2.1199	2.1211	2.1223	2.1235	2.1247	2.1258	2.1270
2.1282	2.1294	2.1306	2.1318	2.1330	2.1342	2.1353	2.1365	2.1377	2.1389
2.1401	2.1412	2.1424	2.1436	2.1448	2.1459	2.1471	2.1483	2.1494	2.1506
2.1518	2.1529	2.1541	2.1552	2.1564	2.1576	2.1587	2.1599	2.1610	2.1622
2.1633	2.1645	2.1656	2.1668	2.1679	2.1691	2.1702	2.1713	2.1725	2.1736
2.1748	2.1759	2.1770	2.1782	2.1793	2.1804	2.1815	2.1827	2.1838	2.1849
2.1861	2.1872	2.1883	2.1894	2.1905	2.1917	2.1928	2.1939	2.1950	2.1961
2.1972	2.1983	2.1994	2.2006	2.2017	2.2028	2.2039	2.2050	2.2061	2.2072
2.2083	2.2094	2.2105	2.2116	2.2127	2.2138	2.2148	2.2159	2.2170	2.2181
2.2192	2.2203	2.2214	2.2225	2.2235	2.2246	2.2257	2.2268	2.2279	2.2289
2.2300	2.2311	2.2322	2.2332	2.2343	2.2354	2.2364	2.2375	2.2386	2.2396
2.2407	2.2418	2.2428	2.2439	2.2450	2.2460	2.2471	2.2481	2.2492	2.2502
2.2513	2.2523	2.2534	2.2544	2.2555	2.2565	2.2576	2.2586	2.2597	2.2607
2.2618	2.2628	2.2638	2.2649	2.2659	2.2670	2.2680	2.2690	2.2701	2.2711
2.2721	2.2732	2.2742	2.2752	2.2762	2.2773	2.2783	2.2793	2.2803	2.2814
2.2824	2.2834	2.2844	2.2854	2.2865	2.2875	2.2885	2.2895	2.2905	2.2915
2.2925	2.2935	2.2946	2.2956	2.2966	2.2976	2.2986	2.2996	2.3006	2.3016
2.3026									

Nat. Nos.	0	1	2	3	4	5	6	7	8	9	Proportional Parts.								
											1	2	3	4	5	6	7	8	9
10	0000	0043	0086	0128	0170	0212	0253	0294	0334	0374	4	8	12	17	21	25	29	33	37
11	0414	0453	0492	0531	0569	0607	0645	0682	0719	0755	4	8	11	15	19	23	26	30	34
12	0792	0828	0864	0899	0934	0969	1004	1038	1072	1106	3	7	10	14	17	21	24	28	31
13	1139	1173	1206	1239	1271	1303	1335	1367	1399	1430	3	6	10	13	16	19	23	26	29
14	1461	1492	1523	1553	1584	1614	1644	1673	1703	1732	3	6	9	12	15	18	21	24	27
15	1761	1790	1818	1847	1875	1903	1931	1959	1987	2014	3	6	8	11	14	17	20	22	25
16	2041	2068	2095	2122	2148	2175	2201	2227	2253	2279	3	5	8	11	13	16	18	21	24
17	2304	2330	2355	2380	2405	2430	2455	2480	2504	2529	2	5	7	10	12	15	17	20	22
18	2553	2577	2601	2625	2648	2672	2695	2718	2742	2765	2	5	7	9	12	14	16	19	21
19	2788	2810	2833	2856	2878	2900	2923	2945	2967	2989	2	4	7	9	11	13	16	18	20
20	3010	3032	3054	3075	3096	3118	3139	3160	3181	3201	2	4	6	8	11	13	15	17	19
21	3222	3243	3263	3284	3304	3324	3345	3365	3385	3404	2	4	6	8	10	12	14	16	18
22	3424	3444	3464	3483	3502	3522	3541	3560	3579	3598	2	4	6	8	10	12	14	15	17
23	3617	3636	3655	3674	3692	3711	3729	3747	3766	3784	2	4	6	7	9	11	13	15	17
24	3802	3820	3838	3856	3874	3892	3909	3927	3945	3962	2	4	5	7	9	11	12	14	16
25	3979	3997	4014	4031	4048	4065	4082	4099	4116	4133	2	3	5	7	9	10	12	14	15
26	4150	4166	4183	4200	4216	4232	4249	4265	4281	4298	2	3	5	7	8	10	11	13	15
27	4314	4330	4346	4362	4378	4393	4409	4425	4440	4456	2	3	5	6	8	9	11	13	14
28	4472	4487	4502	4518	4533	4548	4564	4579	4594	4609	2	3	5	6	8	9	11	12	14
29	4624	4639	4654	4669	4683	4698	4713	4728	4742	4757	1	3	4	6	7	9	10	12	13
30	4771	4786	4800	4814	4829	4843	4857	4871	4886	4900	1	3	4	6	7	9	10	11	13
31	4914	4928	4942	4955	4969	4983	4997	5011	5024	5038	1	3	4	6	7	8	10	11	12
32	5051	5065	5079	5092	5105	5119	5132	5145	5159	5172	1	3	4	5	7	8	9	11	12
33	5185	5198	5211	5224	5237	5250	5263	5276	5289	5302	1	3	4	5	6	8	9	10	12
34	5315	5328	5340	5353	5366	5378	5391	5403	5416	5428	1	3	4	5	6	8	9	10	11
35	5441	5453	5465	5478	5490	5502	5514	5527	5539	5551	1	2	4	5	6	7	9	10	11
36	5563	5575	5587	5599	5611	5623	5635	5647	5658	5670	1	2	4	5	6	7	8	10	11
37	5682	5694	5705	5717	5729	5740	5752	5763	5775	5786	1	2	3	5	6	7	8	9	10
38	5798	5809	5821	5832	5843	5855	5866	5877	5888	5899	1	2	3	5	6	7	8	9	10
39	5911	5922	5933	5944	5955	5966	5977	5988	5999	6010	1	2	3	4	5	7	8	9	10
40	6021	6031	6042	6053	6064	6075	6085	6096	6107	6117	1	2	3	4	5	6	8	9	10
41	6128	6138	6149	6160	6170	6180	6191	6201	6212	6222	1	2	3	4	5	6	7	8	9
42	6232	6243	6253	6263	6274	6284	6294	6304	6314	6325	1	2	3	4	5	6	7	8	9
43	6335	6345	6355	6365	6375	6385	6395	6405	6415	6425	1	2	3	4	5	6	7	8	9
44	6435	6444	6454	6464	6474	6484	6493	6503	6513	6522	1	2	3	4	5	6	7	8	9
45	6532	6542	6551	6561	6571	6580	6590	6599	6609	6618	1	2	3	4	5	6	7	8	9
46	6628	6637	6646	6656	6665	6675	6684	6693	6702	6712	1	2	3	4	5	6	7	7	8
47	6721	6730	6739	6749	6758	6767	6776	6785	6794	6803	1	2	3	4	5	5	6	7	8
48	6812	6821	6830	6839	6848	6857	6866	6875	6884	6893	1	2	3	4	4	5	6	7	8
49	6902	6911	6920	6928	6937	6946	6955	6964	6972	6981	1	2	3	4	4	5	6	7	8
50	6990	6998	7007	7016	7024	7033	7042	7050	7059	7067	1	2	3	3	4	5	6	7	8
51	7076	7084	7093	7101	7110	7118	7126	7135	7143	7152	1	2	3	3	4	5	6	7	8
52	7160	7168	7177	7185	7193	7202	7210	7218	7226	7235	1	2	2	3	4	5	6	7	7
53	7243	7251	7259	7267	7275	7284	7292	7300	7308	7316	1	2	2	3	4	5	6	6	7
54	7324	7332	7340	7348	7356	7364	7372	7380	7388	7396	1	2	2	3	4	5	6	6	7

Nat. Nos.	0	1	2	3	4	5	6	7	8	9	Proportional Parts. 1	2	3	4	5	6	7	8	9
55	7404	7412	7419	7427	7435	7443	7451	7459	7466	7474	1	2	2	3	4	5	5	6	7
56	7482	7490	7497	7505	7513	7520	7528	7536	7543	7551	1	2	2	3	4	5	5	6	7
57	7559	7566	7574	7582	7589	7597	7604	7612	7619	7627	1	2	2	3	4	5	5	6	7
58	7634	7642	7649	7657	7664	7672	7679	7686	7694	7701	1	1	2	3	4	4	5	6	7
59	7709	7716	7723	7731	7738	7745	7752	7760	7767	7774	1	1	2	3	4	4	5	6	7
60	7782	7789	7796	7803	7810	7818	7825	7832	7839	7846	1	1	2	3	4	4	5	6	6
61	7853	7860	7868	7875	7882	7889	7896	7903	7910	7917	1	1	2	3	4	4	5	6	6
62	7924	7931	7938	7945	7952	7959	7966	7973	7980	7987	1	1	2	3	3	4	5	6	6
63	7993	8000	8007	8014	8021	8028	8035	8041	8048	8055	1	1	2	3	3	4	5	5	6
64	8062	8069	8075	8082	8089	8096	8102	8109	8116	8122	1	1	2	3	3	4	5	5	6
65	8129	8136	8142	8149	8156	8162	8169	8176	8182	8189	1	1	2	3	3	4	5	5	6
66	8195	8202	8209	8215	8222	8228	8235	8241	8248	8254	1	1	2	3	3	4	5	5	6
67	8261	8267	8274	8280	8287	8293	8299	8306	8312	8319	1	1	2	3	3	4	5	5	6
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